White Water to Blue Water
Potential Partnerships

Available online at: http://www.ww2bw.org/ww2bw

Note: where contact information is provided for a partnership, you may contact that person directly. Otherwise, please contact the relevant program liaison.

INTEGRATED WATERSHED MANAGEMENT

Co-Chair: Vincent Sweeney, CEHI, vsweeney@cehi.org.lc
Co-Chair: Tom Crow, US Forest Service, tcrow@fs.fed.us
Program liaison: Elizabeth McLanahan, 202-482-5140, Elizabeth.Mclanahan@noaa.gov

Sea Grant International

Lead(s): Rene Eppi, Matt Wilburn and Jill Hepp (NOAA/OAR/IA); URI/Coastal Resources Center. Partners: Latin America-University of Zamorano, Honduras; University of Central America, Nicaragua. **Point of contact:** Matt Wilburn (NOAA/OAR), Matt.Wilburn@noaa.gov **Partners** : **Potential Partners:** Caribbean –UWI; AMCHAM; CARIRI; IMA; OECS-ESDU; UWICED; Bellairs Research Institute; Caribbean Marine Research Center; CCA; CEHI; CTO	The NOAA National Sea Grant program (in collaboration with the University of Rhode Island Coastal Resources Center) is a collaborative partnership among government, academia, industry, scientists, etc. to coordinate research, cooperative extension, tech transfer, education, etc in the area of coastal resources. Sea Grant is currently adapting/expanding this program to Latin America and the Caribbean. The Sea Grant Program is an important step towards building and establishing the in-country capacity to effectively identify, research and manage issues related to the watershed and coastal zone. Having a program such as Sea Grant housed within the university framework provides benefits in terms of research capabilities, while extension agents and educators are able to ensure communication and dissemination of information to user groups and stake holders. (A component of projects that is often overlooked when dealing with watershed scale levels.) A regional network of Sea Grant programs through out Latin America and the Caribbean could then link these country programs into a highly effective and efficient way to disseminate scientific information, promote technical exchange and leverage resources. This network could help to indirectly promote closer cooperation and good governance between nations as well as promote best business and environmental practices**.**

Engaging Community Participation in Integrated Watershed Management-Case Studies

Lead(s): Ed Kruse (NOAA/NOS) **Point of contact:**	The marine and coastal ecosystems of the wider Caribbean, however, particularly coral reef systems, are under increasing threats from pollution, over exploitation, conflicting resource usage and alteration of the coastal environment as a result of current coastal development

Ed Kruse (NOAA/NOS), Ed.Kruse@noaa.gov **Partners:** **Potential Partners:** Governments of St. Lucia, Grenada, and St. Vincent; Local NGOs; US State Department; CEHI; UNEP/RCU; UNCCD; IICA; FAO; CBWMP	practices. This project will demonstrate the viability of using a collaborative approach to the design of an integrated watershed management strategy based on local agricultural and coastal construction operations and the need to protect sensitive coral reef systems from nonpoint source runoff. The project will be complemented by the development of a Watershed Outreach Program to assist countries in the region in developing the local capacity to educate the agricultural and construction sectors on alternative, cost-effective means of implementing BMP's to reduce polluted runoff. This project will aid in the Implementation of Annex IV of the Land Based Sources Protocol to the Cartagena Convention.
Coral Gardens Initiative	
Lead(s): Angelica Shamerina (Counterpart International), Foundation of Peoples of South Pacific International (FSPI), Counterpart Caribbean **Point of contact:** Angelica Shamerina (Counterpart International), Ashamerina@counterpart.org **Partners** : **Potential Partners:** Punta Cana Ecological Foundation; Discovery Bay Marine Lab, Hotels; Local Community; Local NGOs; OAS; SMMA; SEDU-UWI; International Coral Reef Action Network (ICRAN)-Caribbean Region; CCA; CTO; UWICED	Counterpart International's Coral Gardens Initiative enables coastal and island communities to conserve, manage and restore their coral reefs, and supports poverty alleviation through public/private partnerships and sustainable enterprise. Implemented by a partner organization Foundation of Peoples of South Pacific International (FSPI) with support from several Foundations, European Union and Fiji's major 5-star resort, as well as community participation, the initiative has been highly successful in the South Pacific. For example, the initiative restores the coral reef environment by reducing hotel run off through constructed wetlands, and establishing no-fishing areas. Another alternative involves instituting a marine park at a resort, and developing reef tours, training local youth as reef wardens/ecotour guides, and establishing an environmental trust fund from tourist entry fees into the marine park. The Fiji site was recently selected as an International Coral Reef Action Network (ICRAN) model site (www.icran.org). Preparations to expand the initiative to the Caribbean have already started with the EU funding support and will continue to build. Counterpart is working with an affiliate organization Counterpart Caribbean and other Caribbean conservation partners in the Dominican Republic, Jamaica and Barbados to transfer best practices in coral reef conservation and management from the Pacific to the Caribbean and foster local best practices in community-based coastal management. As the Coral Gardens Caribbean program grows, it will focus particularly on promoting community-based conservation measures as well as certified sustainable reef-based tourism with major resorts in the region, and low-tech restoration approaches.

1st World Congress of Agroforestry	
Lead(s): Greg Ruark (USDA) **Point of Contact**: Greg Ruark (USDA), gruark@fs.fed.us **Partners:** **Potential Partners:** USDA-ARS/CSREES/FAS/FS/NRCS; NOAA; Univ. of Missouri; Univ. of Florida; Univ. of Bonn-Germany; Inter-American Institute for Cooperation on Agriculture; People's Republic of China-Water Ministry; World Agroforestry Center; CCA; Mars, Inc.	This event will be held in Orlando, Florida June 27 to July 2, 2004. During the 1990s, the relevance of agroforestry was recognized in developing countries, where intensive agriculture and forestry have led to reduced biodiversity and wildlife habitat, increased soil erosion, non-point source pollution of fresh water resources, and greenhouse gas emissions. Agroforestry is a set of sustainable land use practices that have the potential to greatly improve the quality of fresh water resources, as well as marine and coastal systems into which they flow. The Congress will feature a session on water quality. Topics will include: agroforestry design concepts in the riparian zone for water quality management, agroforestry for improving in-stream aquatic habitat, and agroforestry for the treatment and reuse of wastewater.
Caddo Lake Initiative	
Lead(s): Caddo Lake Institute and Ramsar site **Point of Contact**: Dwight K. Shellman, Jr. dks@sopris.net **Partners** : Laguna Madre; State of Tamaulipas government; US-Mexico Chamber of Commerce, Monterrey, Mexico **Potential Partners:** Mexico, Costa Rica, Uruguay, other Western Hemisphere sites, governments, local organizations and private stakeholders	The Caddo Lake Initiative, through the Caddo Lake Institute and Ramsar site in SE Texas, facilitates linkages between the Texas site and other current or potential Ramsar sites in Latin America. The Initiative aims to create partnerships of shared knowledge and resources, including activities such as creating a shared website, mapping bird flyway trails, developing a teaching/training network, promoting ecotourism, conducting scientific sampling exercises, raising public awareness of wetlands' benefits, etc.
International Corporate Wetlands Restoration Project (ICWRP)	
Lead(s): Coastal America **Point of Contact**: Joyce W. Namde (U.S. Department of State), namdejw@state.gov	ICWRP is an innovative voluntary public-private global initiative to protect, enhance and restore critically important wetlands, coasts and waterways around the world. ICWRP serves as an umbrella initiative to facilitate the involvement of businesses, environmental organizations, and governments in these efforts. In leveraging private sector support, the ICWRP pursues a two-pronged approach to

Partners : Coastal America Foundation; Ramsar; The Nature Conservancy; the United Nations Foundation; UNESCO; World Heritage; Gillette; Local NGOs **Potential Partners:** Corporations; NGOs; governments	supporting efforts to preserve and restore wetlands and aquatic habitats at World Heritage and Ramsar sites worldwide. Two small grant programs through Ramsar addresses small to medium cost projects. Large grant projects are processed through the United Nations Foundation.
Collaborative Approach to Implementing the Ramsar Convention in the Americas	
Lead(s): Margarita Astrálaga (Ramsar Convention Secretariat) **Point of contact:** Margarita Astrálaga (Ramsar Convention Secretariat) astralaga@ramsar.org **Partners:** Nacional NGO's in the participating countries; major donor countries; national governments; Panama **Potential Partners:** All countries that are Ramsar Contracting Parties; major donor countries; NGOs	Since its drafting 33 years ago as the first global environmental convention focusing on a critical ecosystem and its biodiversity elements, the Ramsar Convention has matured as the key Convention in the conservation and wise use of wetlands. To achieve its objectives the Convention is implemented globally through regional approaches and several on-going partnerships. Two of these are geared specifically to the Western Hemisphere. Others extend worldwide. The Wetlands for the Future Initiative (WFF) was launched in 1995 to strengthen the capacity of Latin American and Caribbean countries to sustainably manage wetland resources and to contribute to the integration of wetland conservation and wise use into the overall development process. The newest partnership is the establishment of a Regional Ramsar Centre for Training and Research on Wetlands in the Western Hemisphere, taking advantage of the benefits and facilities offered by Panama at Ciudad del Saber. Through the Small Grants Fund (SGF) established in 1990, funded by donor countries, developing countries and countries in transition worldwide can apply for grants to carry out technical projects. As a priority, Governments of the region receive financial support to undertake their national wetland policies and strategies. Those parties who have not fully benefited from the grant programs, that need assistance developing national strategies and those needing further capacity building in their respective countries are all eligible for these programs.
Water, Food, and Agriculture: The Third Henry A. Wallace International Scientific Conference Series	
Lead(s): Dick Affleck and Carol Kramer-LeBlanc (USDA/FAS); Francisco Jimenez and Pedro Ferreira (CATIE)	This three-day conference (May 2-5) will address research aspects of critical issues of water management and quality for agriculture, food and other uses in Central America and Mexico. Utilizing an integrated watershed and water resources management framework, the seminar will bring together top researchers in relevant aspects of agriculture, forestry and water from throughout the hemisphere to share knowledge

Point of Contact: Dick Affleck (USDA/FAS), Richard.Affleck@usda.gov **Partners** : **Potential Partners:** Global Water Partnerships (GWP); CATIE's Nordic Country Partners; USAID/G-CAP; Communities and Watersheds Section of CIAT	and develop an agenda and partnerships for continuing research. Central America and Mexico face water problems that this seminar will address using a variety of approaches including spatial analysis, watershed case studies, and bringing to bear recent physical, biological, and social science research results. Among the outcomes of the seminar will be an in-depth understanding of some of the most important regional watersheds, related marine ecosystems, their characteristics, problems, and potential solutions.

Village-Led Watershed Management Methodology for Western Caribbean Basin

Lead(s): Shaun Paul (EcoLogic Development Fund) **Point of Contact:** Shaun Paul (EcoLogic Development Fund) spaul@ecologic.org **Partners:** *NGOs:* EcoLogic; UNORCA/OZEFM (Mexico); Fundación Parque Nacional Pico Bonito (Honduras); La Fundación para la Protección de Lancetilla and Punta Sal y Texiguat (Honduras); Ulew Cheja (Guatemala); Maya Forestry Action Plan (Guatemala); *Government agencies:* Mexican Secretary of Agriculture *US private sector:* ForesTrade; Green Mountain Coffee *Private funding agencies:* Ford Foundation; Blossom Fund; Moriah Fund; Artnz Family Foundation; Flora Family Foundation;	EcoLogic has spearheaded a regional initiative to catalyze community-based watershed management with communities living in extreme poverty in and around buffer zones and biological corridors along the Caribbean coast of Mesoamerica. This regional initiative spans 15 sites in seven countries (Mexico, Belize, Guatemala, Honduras, Nicaragua, Costa Rica and Panama). The work: ▪ Strengthens good governance of watersheds; ▪ Implements cost effective natural resource protection; ▪ Expands economic and health opportunities for the poor; and ▪ Enhances green global trade. This WW2BW initiative builds upon EcoLogic's success at establishing community-based, upland watershed management with local partner organizations based throughout the Mesoamerican Biological Corridor (Mexico and Central America). This offers the benefit of a more comprehensive approach to reducing negative effects of unsustainable land use on one of the Caribbean's most important resources—the Mesoamerican Barrier Reef. Further, EcoLogic and its partners seek to offer opportunities to exchange lessons learned with other initiatives in the Wider Caribbean Basin. EcoLogic is also exploring ways in which communities can capture greater economic benefits from their watershed management efforts. One area currently being considered involves upstream communities charging urban users and industries a quota for providing them with a clean and consistent water supply. This sum will be reinvested in the community for infrastructure improvement and other community development projects. **Next Steps (six months):** • Formalize role of new potential partners in each participating country • Finalize detailed annual operating plans for 8 of the 15 project

Rouse Family Foundation; Wellington Cabot Foundation; and Atkinson Foundation **Potential Partners:** USDA; NOAA; Smithsonian; Governments of Honduras, Mexico, Nicaragua, Panama and Ireland; Cities of La Ceiba, Olanchito and Tela; APPTA – Costa Rica; COCIFIT – Panama; Nicaraguan and Mexican NGOs; World Bank-GEF; World Bank Carbon Finance Unit; United Nations Development Program; Inter American Development Bank; European Union; US AID; Inter American Foundation; University of Cambridge, UK; Harvard University; University of Honduras (CURLA); Johnson & Johnson; Dole; Chiquita; Rotary International	sites • Test and roll out ecosystem services payment model into 4 additional sites • Secure additional financial pledges and commitments of support to expand program to all 15 project sites • Initiate and expand field activities in 8 project sites.
Village-Led Watershed Management in Honduras	
Lead(s): Margaret Lopez (EcoLogic Development Fund) and Gerardo Rodriguez (Fundación Parque Nacional Pico Bonito (FUPNAPIB)) **Point of Contact**: Margaret Lopez (EcoLogic), mlopez@ecologic.org **Partners** : EcoLogic; FUPNAPIB; La Fundación para la Protección de Lancetilla and Punta Sal y Texiguat (PROLANSATE); Ford Foundation; Blossom Fund; Artnz Family Foundation; European Union/COSPE	Over the past three years, EcoLogic and Fundación Parque Nacional Pico Bonito (FUPNAPIB) have developed and refined a highly effective strategy in eleven microwatersheds around the Pico Bonito National Park in northern Honduras. The park sustains threatened and endemic species, and is the source of 22 rivers, three of which feed into the Caribbean Basin and directly impact the Mesoamerican Barrier Reef System. Under our strategy, the local communities have gained regulatory authority over land use, stabilized watersheds and soils by expanding sustainable agriculture and silviculture, while significantly reducing the incidences of water borne illnesses and increasing crop productivity and diversity. EcoLogic and FUPNAPIB now seek to expand their village-led watershed management efforts into the microwatersheds along the park's northern perimeter. Similarly, EcoLogic and another Honduran partner, La Fundación para la Protección de Lancetilla and Punta Sal y Texiguat (PROLANSATE), seek to replicate this proven model in the communities around the nearby Jeannette Kawas National Park, one of the largest and most important coastal marine protected areas in Honduras. Like its sister park, Jeannette Kawas houses important

Potential Partners: Governments of Honduras and Ireland; World Bank-GEF; University of Cambridge, UK; City of La Ceiba; City of Tela; Rotary International; Johnson & Johnson; Dole; and Chiquita	watersheds for the region, which provide water to thousands of people living in extreme poverty, yet is threatened by unsustainable land use practices. The village-led watershed management model introduces or improves upon existing potable water systems. It establishes village water committees that sustain their work through volunteer efforts and cover their costs by charging minimal user fees to support infrastructure improvements to the water delivery system and maintenance of the water catchments areas. Because of the program's success, EcoLogic has been able to leverage $300,000 over the next three years (2003-05) from the European Union to implement the program in all the microwatersheds along the Pico Bonito's southern perimeter, and seeks additional partners to replicate this model in other areas of Pico Bonito and in Jeannette Kawas National Park. **Next Steps (six months):** • Create detailed work plan for 2004. • Secure $300,000 in matching funds from US private and public agencies to scale up this successful initiative. • Determine the level of private sector commitment among local and international companies (*eg,* Johnson & Johnson, Dole, Chiquita) that have already expressed interest in some elements of this project. • Define exactly how the World Bank–GEF can direct their existing commitments to further this initiative. • Define how to coordinate with UNDP-Honduras, which already has a national watershed program. • Initiate and/or expand direct assistance to 22 microwatersheds directly affecting upland water quality essential to the health of the Mesoamerican Barrier Reef
Community-Based Coastal Zone Management in Mesoamerica	
Lead(s): Shaun Paul (EcoLogic) and Gregorio Ch'oc (Sarstoon-Temash Institute for Indigenous Management) **Point of Contact**: Shaun Paul (EcoLogic Development Fund) spaul@ecologic.org **Partners:** EcoLogic; Sarstoon Temash Institute for Indigenous Management (Belize); Fundación para la Protección de Lancetilla, Punta	Participatory management is increasingly recognized as a best practice in integrated coastal zone management in Latin America. EcoLogic works in strategically important national parks in Mesoamerica to increase the role of rural communities in the stewardship of marine and terrestrial resources. Currently, EcoLogic has two initiatives that provide important examples for best practices in integrated coastal zone management in and around the Mesoamerican Barrier Reef. Both initiatives are scaling up their community-based interventions and seek to share lessons learned regionally. Sarstoon Temash National Park, the second largest national park in Belize, provides vital coastal mangrove habitat for rare and endangered species. The park is surrounded by indigenous communities working to improve land use and fresh water quality in and around the terrestrial park, while engaging their cross-border Guatemalan neighbors and area

Sal y Texiguat (Honduras) **Potential Partners:** GEF – World Bank; GEF – World Bank – DAPVS; Oak Foundation; City of Tela; Belize Coastal Zone Management Authority; FUNDAECO (Guatemala); Toledo Institute for Development & Environment (TIDE) (Belize)	stakeholders in planning and management of fisheries and marine resources. Jeannette Kawas National Park is one of the largest and most important coastal marine protected areas in Honduras, and similarly, its neighboring rural communities are engaged in dynamic approaches to participatory watershed management, park protection and coastal zone stewardship.

Natural Resources Systems Programme Land Water Interface (UK Department for International Development)

Lead(s): Dr Christopher Floyd, Programme Manager, NRSP, Thamesfield House, Boundary Way, Hemel Hempstead HP2 7SR. UK. Email: nrsp@htsdevelopment.com Tel +44 (0) 1442 202 439 Fax+44 (0) 1442 219 886 Web: http://www.nrsp.co.uk/ **Point of contact:** Dr Christopher Mees c.mees@mrag.co.uk **Partners**: Buccoo Reef Action Group CANARI CARDI CCA CCAM Foundation CaMMP CEHI CGPC DFID-C Environment Tobago MAFFE St Lucia PCA Jamaica SMMA Tobago House of Assembly UNEP CEP UWI CMS	The DFID funded **Natural Resources Systems Programme** (NRSP) is a multi-lateral ten-year research programme (ending in March 2005) with the goal of generating benefits for poor people by the application of new knowledge to natural resource (NR) systems, including the **Land-Water Interface** (LWI). One geographical focus of the NRSP LWI is the Caribbean coastal zone defined, for the purposes of the Caribbean Islands, as the whole island from watershed to sea. There is considerable synergy between the aims of the White Water to Blue Water Partnership (WW2BW) and the NRSP LWI. Both seek to promote integrated (watershed / coastal zone) management, including the amelioration of pollution, in support of sustainable development for the benefit of poor people. A number of the international agreements that the WW2BW supports are embedded within products of LWI projects. **How NRSP works** NRSP commissions short- to medium-term research projects, which singly, or in a sequence combine to achieve the programme purpose. Research demand for the LWI in the Caribbean was re-evaluated in 2001 through a workshop held in Barbados with relevant intermediary organisations from the region. Within the LWI, project activities contribute to achieving the purpose of generating benefits for poor people by application of new knowledge to natural resources management in the LWI. Programme purpose is achieved through outputs that provide: 1. Understanding of the factors that influence the livelihood strategies of the poor who depend on the NR base; 2. Understanding of the integrated NR-management strategies that could benefit the poor; and, 3. The means to realise improved integrated NR-management strategies for specific groups of the poor.

UWI CERMES UWI NRMP UWI SEDU UWI-Zoology Dept. Plus a number of other organizations with some level of interaction with the programme **Potential Partners:** A number of institutions have been identified as potential partners including national partners involved in watershed and coastal zone management, academic institutions, regional policy making and development institutions, and regional NGOs	**What the NRSP LWI has to offer** Ten NRSP LWI projects have been conducted in the Caribbean over the last eight years (a detailed listing is available on our website, see left). Leading up to the end of the programme, a number of projects are planned to promote the wider uptake of the products of research. Promotion will be achieved through partnerships with local organisations that have taken ownership of these research products through their involvement in projects See partnerships, left). Three suites of LWI projects are being promoted in the Caribbean: • Institutional arrangements and decision support tools and guidelines for livelihood sensitive (pro-poor) integrated coastal zone management (MPA and non MPA situations) • Policy relevant knowledge on feasible alternative natural resource based strategies for enhancing livelihoods. • Best management practice for the amelioration of sediment and agro-chemical pollution. The continued uptake promotion and adoption of new knowledge and research products generated through the NRSP LWI programme will make a significant contribution towards achieving the common objectives of NRSP LWI and the WW2BW Partnership.

Latin America and Caribbean Hydrological Program (IHP-LAC)

Lead(s): Victor Pochat (Secretariat of Water Resources , Argentina), Basil Fernandez (Chairperson Water Resources Authority of Jamaica), Gustavo Gomez Aguirre (Director of Hydrology INAMHI, Ecuador), Maria C. Donoso (IHP-UNESCO) **Point of contact:** Maria C. Donoso (IHP-UNESCO) mcdonoso@unesco.org.uy **Partners** : IHP National Committees (Argentina, Uruguay, Paraguay, Chile, Brazil, Colombia, Venezuela, Ecuador, Peru, Bolivia, Panama, Costa Rica, Nicaragua, Mexico, Honduras, Belize, Guatemala, El	The Latin America and Caribbean Hydrological Programme started as the regional component of the International Hydrological Decade (IHD, 1965-1974). This UNESCO initiative became in 1975 the International Hydrological Programme (IHP). Since its inception, much progress has been achieved regarding methodologies for hydrological studies and training and education in the water sciences. Although the general objectives remain valid, greater emphasis is being put on the role of water resources management for sustainable development and the adaptation of the hydrological sciences to cope with the expected changing climate and environmental conditions. Another important objective of the IHP is to integrate the countries of the region into ventures of research and training. The principal modes of execution of IHP have been working groups, symposia, workshops, publications and extra-budgetary projects, the latter especially through the UNESCO Regional Office for Science under the coordination of the Regional Hydrologist for Latin America and the Caribbean. The UNESCO IHP-LAC is a long-term program executed in phases of a 6-year duration, Presently, the program is in its VI phase the general theme of which is defined as "Water Interactions: Systems at Risk and Social Challenges". The program recognizes the shift in thinking about water from fragmented compartments of scientific inquiry to a more

Salvador, Jamaica, Cuba, Dominican Republic, Barbados, Antigua, Aruba, Bahamas, Dominica, Saint Kitts & Nevis, Guyana, Grenada, St. Lucia, Saint Vincent & the Grenadines, Trinidad and Tobago, Suriname) OAS, CEHI, CRRH, NOAA-AOML, IWRN, WWCo, WWAP **Potential Partners:** Universities, Research Centers and Institutes, Regional Organizations	holistic integrated approach. The IHP-LAC is developed and implemented through a partnership of National IHP Committees (see list in side column). Although of different composition and degree of activity in each country, these committees are mostly integrated by water-sector government officials, water professionals, hydro-sciences experts, and researchers. At the regional level the committees meet every two years to evaluate the advance of the program, exchange knowledge and expertise, and to plan future activities. For the execution of individual activities and/or subprograms, the partnership is extended and includes national and regional institutions, organizations and agencies. In the last regional meeting (held on October 2003, in Guayaquil, Ecuador), the IHP-LAC partnership agreed to undertake the revision and upgrade of the water balance carried out by UNESCO in the 1980s. This initiative will incorporate new data sets and improved methodologies. The outcome of this collaborative effort is expected to be fundamental for any future integrated water resources management undertaken in the region. A follow-up meeting focused in the Caribbean sub-region is scheduled to take place in Jamaica (March 2004) prior to and in preparation for the White Water To Blue Water (WW-BW) Partnership Conference to take place in Miami. The involvement of new partners (individuals and organizations) is welcomed and expected in the process of the WW-BW Conference.
WaterWeb Consortium (WWCo)	
Lead(s): Leonard Berry (CES-FAU), Carlos Fernandez-Jauregui (WWAP), Pablo Gonzalez (OAS), Joao Senra (Secretariat of Water Resources of Brazil), David Moody (Beaverwood Inc.), Maria C. Donoso (IHP-UNESCO). **Point of contact:** Leonard Berry (CES-FAU) lberry@ces.fau.edu **Partners**: Inter-American Water Resources Network (IWRN), OAS, UNESCO, CES, World	The WaterWeb Consortium (WWCo) is a partnership of organizations involved in the managing and exchange of water information in the Americas. The WWCo in partnership with the International Hydrological Programme (IHP) of UNESCO and WWAP are developing the The Water Portal of the Americas (WPoA). The Water Portal of the Americas (WPoA) is a water information service including an Internet web site and other initiatives to enhance the availability of quality water information. The goal is to provide an entryway (portal) to water information, to create methods that lead people to relevant information, and to create a water information network, community, and resource that will provide qualified, trusted, and verifiable information and contacts. A second, but equally important goal of the WPoA is to develop a prototype water portal that will become a model of information sharing and cooperation for others to follow. The approach is to build a regional network of information that is integrated with the UNESCO/IHP-

Water Assessment Programme (WWAP), Foundation for the Inter-American Dialogue, Secretariat of Water Resources of Brazil, GEMS Water **Potential Partners:** CEPIS, CEHI, CRRH, IICA, AWRA, GEF	WWAP global water portal. This model will allow individual international regions (Africa, Asia, Europe, etc) to develop the contacts, relationships, information, and issues that are most important to their regions while providing access to worldwide information and contributing to the world's body of knowledge. The Portal web site was released in conjunction with the WWAP's World Water Development Report in March 2003 and was presented at the Third World Water Forum. At the time of release the system had been under active development for one year. The portal has been refined from idea to proposal to working model over the past three years through a series of Water Information Summits, workshops, small group meetings, and collaborative on-line discussions. The Board of Directors of the WWCo will meet in February 2004 in proceeding the White Water To Blue Water (WW-BW) Partnership Conference to take place in Miami. Follow-up on the outcome of the WW-BW Conference is expected to occur din the process of the next Water Information Summit in the last trimester of 2004.
Reefs at Risk in the Caribbean	
Lead(s): World Resources Institute (WRI) **Point of Contact**: Lauretta Burke (lauretta@wri.org); or Jon Maidens (jmaidens@wri.org) **Partners:** Atlantic and Gulf Rapid Reef Assessment; Caribbean Conservation Association; CARICOMP; Coral Resource Management; Environmental Defense; Florida International University; Global Coral Reef Monitoring Network; International Coral Reef Action Network; Island Resources Foundation; National Center for Caribbean Coral Reef Research; The Nature Conservancy; The World Fish Center; Reef Check; United Nations Environment Program's Caribbean Environment Program; UNEP-World Conservation Monitoring	The primary goals of the *Reefs at Risk in the Caribbean* project are to raise awareness about threats to coral reefs and to make available a comprehensive, high quality base of information on physical threat to the region's coral reefs, as an aid to more effective management. In collaboration with partners in the region, the project has implemented an analysis linking human activities and reef condition. This includes a watershed-based analysis of land-based sources of pollution. To address this information need, *Reefs at Risk in the Caribbean* has four primary components: ▪ Collect and integrate information to improve the base of information available for examining threats to, status of, and protection of coral reefs within the wider Caribbean. ▪ Estimate (model) threats to coral reefs based on human population and development patterns. This will allow for extrapolation about threats to (and likely condition of) the many reefs for which survey information is not available. ▪ Develop a Geographic Information System (GIS) based tool for local-level evaluation of development scenarios and related implications for coral reef health and economic value. ▪ Raise awareness through wide dissemination of integrated data sets, model results, a published report, and the GIS planning tool.

Center; UN Foundation; University of the West Indies; University of Miami; University of South Florida; USAID; US National Aeronautics and Space Administratin; US National Oceanic and Atmospheric Administration; World Bank / GEF Mesoamerican Barrier Reef System Project; World Wildlife Fund	

Bonaire: Integral water management to save Divers Paradise

Lead: Peter Montanus, Section of Environment and Natural Resources, Bonaire Department of Physical Planning and Management. drob.mnb@bonairelive.com **Partners** : Bonaire Alliance for Nature (NGO platform), contact: Kalli de Meyer kdm@bonairelive.com European Union Central Government Netherlands Antilles **Potential Partners:** Curaçao Public Works Service, Dutch Ministry of Transport, Public Works and Water Management	The island of Bonaire (Divers Paradise), with help of the European Union, wants to protect both public health and the Marine Protected Area surrounding the island by a sewerage project. The project includes wastewater collection, central wastewater treatment, a storm water drainage system and legal protection of storm water retention and sedimentation areas. The populated areas along the coast will be connected to a sewage system. The treated waste water will be reused for agricultural purposes elsewhere on the island and will partly be returned to the coastal zone for irrigation of hotel gardens. The economic feasibility of the project depends on the sale of effluent. But this irrigation water still contains nutrients. The key issue is how many nutrients the soil, the groundwater or the marine environment can absorb without endangering the main objective of the project: protecting the surrounding reefs.

NOAA International Coral Conservation Grants

Lead(s): NOAA and NFWF respectively **Point of Contact**: see web page listed to right.	Over the past 3 years, the NOAA International Coral Conservation Program and the NFWF Croal Grants in the Caribbean have totaled more than $1M in small grants. 2004 Funding Opportunities *NOAA's Coral Reef Conservation Grant Program* manages an international coral grants program, that currently requests proposals by March 12, 2004. Eligible applicants include all international, governmental, and non-governmental organizations. Three of the four grant categories emphasize the Caribbean as a preferred geographic

	area: 1. Promote Watershed Management in Wider Caribbean small island communities excluding the Mesoamerican coral reef corridor; 2. Encourage Regional Approaches to Further No-Take Marine Reserves in the Wider Caribbean And Southeast Asia; 3. Promote Socio-Economic Monitoring in Coral Reef Management in the Caribbean and Southeast Asia. The last category Does not require a specific geographic area and Caribbean projects are welcome: Enhance Management Effectiveness of Marine Protected Areas. For details and access to all pertinent instructions and documents please see: http://ipo.nos.noaa.gov/coralgrants.html. *The National Fish and Wildlife Foundation (NFWF)* operates a coral conservation grants program that awards matching grants for building public-private partnerships to reduce and prevent degradation of coral reefs and associated reef habitats (e.g. seagrass beds, mangroves etc.). Projects may address causes of coral reef degradation wherever they occur (nationally and internationally), from coastal watersheds to the reefs and surrounding marine environment. Proposals should support partnerships that provide solutions to specific problems to help prevent coral reef degradation. The Foundation has two focus areas over the next three cycles that will give special priority to hands-on, measurable watershed approaches to reduce land-based pollution and sedimentation to adjacent coral reefs and associated habitats; and efforts to measure and improve the management effectiveness of coral reef protected areas, preferably using the recently-published NOAA-World Commission on Protected Areas-World Wildlife Fund methodology. Pre-proposals are due January 31, 2004 (no exceptions). Full proposals will be accepted by invitation only. For details, please see: http://nfwf.org/programs/coralreef.htm. Please monitor this web site for future announcements.
People & Mangroves	
Lead: Caribbean Conservation Association **Point of Contact**: Joth Singh cca@ccanet.net **Partners** : **Potential Partners** NOAA; Caribbean NGOs;	Mangrove wetlands in the Caribbean are undervalued resources and as such are under severe threat. Many have been destroyed to allow for construction of commercial facilities while some are used as dumps. There are currently few educational materials developed in the region which enable teachers and NGOs to work on a sound scientific basis which encourages both thinking and action from Primary School children. The CCA is interested in developing a resource pack for use at the primary school and community levels. The approach to be used will draw from the experiences gathered during production of the "People and Corals" resource pack. The aims of the project are: • provide resources to help communities understand the threats

UNESCO; others	and opportunities to them from the biodiversity of mangrove wetlands • develop a active learning resource pack on Caribbean mangrove wetlands • increase school teacher's capacity to introduce active learning and first hand investigation into the school curriculum • enable schools to have a beneficial effect on their local environment through small scale conservation projects

Environmental Service Payments and Cleaner Production in the Mesoamerican Reef Ecoregion: Consolidating the Motagua-Polochic Water Fund

Lead(s): Oscar Nuñez (Fundación Defensores de la Naturaleza) & Melissa Edwards (WWF-Central America). **Point of contact:** **- Oscar Nuñez** **onunez@defensores.org.gt** **- Melissa Edwards** **medwards@wwfca.org** **Partners (and project donors)**: Swiss-Re, WWF-US (Center for Conservation Finance), The Nature Conservancy, Avina Foundation, USAID (PROARCA & FIPA projects), The Guatemalan Clean Production Center, The Guatemalan Trust Fund, local Motagua and Polochic River Valley municipalities. **Potential Partners:**	The Motagua-Polochic Water Fund is a joint initiative led by Fundación Defensores de la Naturaleza ("Defenders of Nature") with support from WWF-Central America and other national and international partner organizations. Its aim is to establish an innovative financial mechanism – the "Water Fund" - that links upstream forest conservation with downstream water users in support of integrated river basin management, the maintenance and integrity of hydrological cycles, biodiversity conservation and sustainable water use, along the Motagua-Polochic river basin systems encompassed within the Mesoamerican Reef (MAR) WWF Global 200 Ecoregion. The "heart" of the initiative is focused on the Sierra de las Minas Biosphere Reserve, which represents an important water reservoir within the country and which harbors over two thirds of all registered mammals and reptiles in Guatemala and Belize. By promoting environmental service payments and cleaner production, particularly with medium to large industrial and agro-industrial water users, the project will help mitigate threats to forest, freshwater and downstream coastal marine ecosystems stemming from inadequate land use changes, forest fires and point and non-point source pollution among others. Working with the private sector to raise corporate responsibility through a "Ridge-to-Reef" approach is key to this project. So far, this project´s design won the ReSource prize for Sustainable Watershed management in March 2003, awarded by Swiss Re, one of the Worlds's leading reinsurance companies. The award is conferred on an annual basis and aims to support promising watershed management projects, from the planning and evaluation stages through to implementation.

Public/Private Partnership for the Restoration and Management of a Tropical Estuary

Lead(s): San Juan Bay Estuary Program **Point of Contact:** LM Szendrey	The San Juan Bay Estuary Program (SJBEP) is a successful public/private partnership involving the Federal and Local Government, as well as the private sector and communities. It is the only Tropical Estuary Program that is part of the National Estuary Programs designated by the US-EPA. The partnership has successfully prepared

mszendrey@bacardi.com **Partners:** PR Environmental Quality Board, Department of Natural and Environmental Resources (PR), Bacardi Corporation, Banco Popular de PR, Planning Board (PR), US Environmental Protection Agency, CEDI (Caribbean Environmental Development Institute) **Potential Partners:** NGOs, Corporations, Tourism Office	a Comprehensive cleanup and Management that has been approved by both the Federal and Local Government. The SJBEP is located in the Caribbean and is bilingual, facilitating its ability to aid other Caribbean Island States to develop programs to remediate and manage their estuarine systems. The SJBEP is also associated with the Caribbean Environment Development Institute (CEDI), which has one of its goals to facilitate environmental technology transfer to the greater Caribbean area. CEDI has implemented successful projects in the Caribbean.

Association of State Floodplain Managers

Lead(s): Larry Larson, Executive Director, Association of State Floodplain Managers (ASFPM); George Riedel, NAI Sub Committee Chair, ASFPM; Chad Berginnis, Chair, Executive Board of Directors, ASFPM; Pam Pogue, Board of Directors, ASFPM **Point of contact:** Larry Larson (ASFPM), larry@floods.org **Partners** : **Potential Partners:** FEMA, EPA, NOAA, HUD, NRCS, State NFIP Programs, State Flood Associations and Chapters; APA; State, regional and county Planning Organizations; Watershed Councils; National Wildlife Federation; Association of Watershed Managers	The Association of State Floodplain Managers began in 1977 as the supporting organization of professionals involved in floodplain management, flood hazard mitigation, flood preparedness, and flood warning and recovery. It is the mission of the Association to mitigate the losses, costs and human suffering caused by flooding and to promote wise use of the natural and beneficial functions of floodplains. Today the ASFPM is the premier voice in floodplain management practice and policy throughout the nation. Our 9,500 national and chapter members represent local, state and federal government agencies, citizen groups, private consulting firms, academia, the insurance industry, and lenders. ASFPM's influence is expressed through policy and practice changes that impact floodplain management in the U.S. and internationally. Our goals are simple – help the public and private sectors: 1. Reduce the loss of human life and property damage resulting from flooding. 2. Preserve the natural and cultural values of floodplains. 3. Promote flood mitigation for the prevention of loss and the wise use of floodplains. 4. Avoid actions that exacerbate flooding. No Adverse Impact Floodplain Management" initiative is a managing principle that is easy to communicate and from a policy perspective tough to challenge. *In essence,* ***No Adverse Impact floodplain management is where the action of one property owner does not adversely impact the rights of other property owners,*** *as measured by increased flood peaks, flood stage, flood velocity, and erosion and sedimentation.* No adverse impact floodplains could become the default management criteria, unless a community has developed and adopted a

	comprehensive river plan that identifies acceptable levels of impact, appropriate measures to mitigate those adverse impacts and a plan for implementation. No Adverse Impact could be extended to entire watersheds as a means to promote the use of retention and detention technologies to mitigate increased runoff from urban areas. While the No Adverse Impact approach will result in reduced damages for the 1% chance flood event, its true strength is that it virtually ensures that future development actions which impact the floodplain and watershed must be part of a locally adopted plan. This removes the mentality that floodplain management is something imposed by FEMA, and promotes local accountability for developing and implementing a comprehensive strategy and plan for the watershed and floodplain. Giving locals the flexibility to adopt comprehensive local management plans, which would be recognized by FEMA and other federal programs as the acceptable management approach in that community, will provide the community with control and support for innovative approaches.
People and Corals	
Lead: Caribbean Conservation Association. **Point of Contact**: Joth Singh cca@ccanet.net **Partners:** United States Fish & Wild Life Foundation; U.K. Field Science Council; the Darwin Initiative for the Preservation of Species; Barclays Bank Development Fund; Australian High Commision to Barbados & the OECS; Barbados Museum & Historical Society; the Dominica Conservation Association; Environmental Awareness Group; Negril Coral Reef Preservation Society; BVI National Parks Trust; St. Lucia National Trust. **Potential Partners**:	Caribbean coral reefs are under threat and there are currently few educational materials developed in the region which enable teachers and NGOs to work on a sound scientific basis which encourages both thinking and action from Primary School children. The CCA in collaboration with its partners have developed a coral reef resource pack designed for use by primary school students and community groups. The aims of the project are to: • provide resources to help communities understand the threats and opportunities to them from the biodiversity of coral reefs • develop a active learning resource pack on Caribbean coral reefs • increase school teacher's capacity to introduce active learning and first hand investigation into the school curriculum • enable schools to have a beneficial effect on their local environment through small scale conservation projects The CCA is seeking to develop community programmes throughout the Caribbean which will benefit from the resource packs developed.

Integrated Ecosystem Management: Community Based Approach Using Systems Analysis and Simulation Modeling	
Lead: Terri Morgan, Partnership For The Environment; W.E. Grant, Ph.D., Ecological Systems Laboratory, Dept. of Wildlife and Fisheries Science, and Texas A&M University **Point of Contact**: terrimorgan@sbcglobal.net wegrant@tamu.edu **Partners:** Partnership For The Environment; Texas A&M University; UNEP/ROLAC; Coralina Corporation, Colombia; La Universidad Nacional de Colombia **Potential Partners**:	This project aims to implement a program of local capacity building and institutional strengthening in the identification and management of complex issues that impact the health of specific regional watersheds and marine environments, and to assist the stakeholder group to develop best management practices. The project will use simulation modeling in an interactive workshop setting as a tool to create local stakeholder involvement leading to increased awareness and improved decision making for natural resource conservation and environmental protection. Because the project target areas (San Andres Archipelago, Colombia; La Mohana Region, Colombia; and Panama Canal Watershed, Panama) are both environmentally and economically fragile, the linkages between local ecological degradation and the local economy will be identified, and possible strategies for intervention will be included as part of an integrated framework or matrix for improved management and livelihoods development.
National Programme of Action	
Lead: Clement Lewsey (NOAA/NOS) **Point of Contact:** Ed Kruse (NOAA/NOS) Ed.Kruse@noaa.gov Gonzalo Cid (NOAA/NOS) Gonzalo.Cid@noaa.gov **Potential Partners:** CATHALAC, Panama NOAA/NOS NOAA/OAR Institute of Marine Affairs, Trinidad & Tobago UNEP/GPA, Netherlands UNEP/ROLAC, Mexico UNEP/RONA, Washington UNEP/RCU, Jamaica CEHI	NOAA/NOS and UNEP/GPA have developed a collaboration agreement to implement initiatives in the Wider Caribbean region under the framework of the Global Programmme of Action for protection of marine environment from land-based activities. The primary focus of this collaboration will be the provision of technical assistance and support to countries in the development and implementation of National Programmes of Action to implement the LBS Protocal. This project will use a collaborative approach and develop partnerships for designing integrated watershed management strategies based on local agricultural and coastal development patterns and their impact on sensitive coastal ecosystems. Pollution, imperviousness of land areas, loss of vegetative cover in watersheds, increase risk of flooding in low-lying areas, soil erosion into coastal waters are the most important problems affecting coastal waters and ecosystems in the region. One of the first steps toward the protection of coastal areas from these land-use trends and land-based sources of pollution is the design of a National Program of Action (NPA), under the general guidelines of the UNEP/GPA. The main outcome of this project is the design of NPA for at least three countries in the Caribbean region, utilizing an integrated watershed management approach. This project will also include development of a watershed outreach program to assist countries in developing local

	capacity to implement best management practices address land-based sources of pollution. Based in the experience generated during this project, this proposal also intends to create a basic regional protocol to help other countries to develop the necessary steps for the creation of their own NPAs and create a network of institutions and people to generate internal collaboration among nations to create NPAs and/or manage shared/common resources.
Agroforestry Designs for Managing Non-Point Source Pollution from Agriculture and Communities	
Lead(s): Greg Ruark (USDA/FS) **Point of contact:** Greg Ruark, Director National Agroforestry Center gruark@fs.fed.us **Partners:** **Potential Partners:** Globally - Farmers and communities where controlling the entry of non-point source pollution into surface waters following rainstorms is a concern.	An estimated 70 percent of the non-point pollution in the U.S. originates from agriculture. The result has been the impairment of many of our freshwater resources. In the Great and Central Plains, where farming is the dominant land use, the nutrient runoff is so large that it triggers a biological chain reaction each summer in the Gulf of Mexico that depletes the oxygen from an area covering 8,000 square miles. In addition, urbanized landscapes are discharging massive volumes of contaminated stormwater runoff at high velocities into streams causing bank erosion, channel cutting, and flooding downstream, while producing a general disruption in the ecological function and integrity of our freshwater and coastal marine ecosystems. Agroforestry technologies, like riparian forest buffers, have been shown to be effective in using trees and other vegetation to reduce water pollution from agricultural activities. Trees can increase soil porosity, improve water infiltration, absorb excess nutrients, degrade pesticides, and stabilize streambanks. In addition, many agroforestry technologies that were originally designed to address agricultural problems, are now being modified to help communities retain and treat stormwater runoff by restoring natural ecological functions for processing stormwater.
Conservation Planning	
Lead(s): Thomas R. Crow, USDA, Forest Service; Matthew Judy, USDA, Natural Resources Conservation Service; Bill Boyd, USDA, Natural Resources Conservation Service. **Point of contact:** Thomas R. Crow (tcrow@fs.fed.us) and Gary Springer, Secretary General,	An approach to conservation planning developed by the USDA Natural Resources Conservation Service will be presented in which local planning is embedded into landscape and regional planning. To effectively address many natural resource issues such as the decline of fisheries, pollution of drinking water supplies, or pest and disease infestations, planning must be conducted at scales larger than an individual farm. The individual farm, however, remains the operational scale for on-the-ground applications. Once the regional or landscape plan is in place, individual conservation plans can be developed in a more integrated fashion in order to met critical areaswide conservation objectives. This approach to conservation planning will be illustrated using a USDA Forest Service initiative dealing with land use in the Mississippi River basin, the related problems of water quality, and

The Gulf of Mexico States Accord (gulfstatesaccord@aol.com) **Partners** : Gulf of Mexico States Accord (member states: Campeche, Quintana Roo, Tabasco, Tamaulipas, Veracruz, Yucatan, Alabama, Florida, Louisiana, Mississippi, and Texas); Leopold Center for Sustainable Agriculture at Iowa State University. **Potential Partners:** Sea Grant Program	hypoxia in the Gulf of Mexico. A partnership between Gulf states in Mexico and the United States will be highlighted.

Cuba - Application of IWCAM Concepts at Cienfuegos Bay Watershed

Lead(s): **Joaquin Gutierrez Diaz,** Centro de Información, Gestión y Educación Ambiental (CIGEA), Cuba **Point of contact:** Vincent Sweeney, CEHI, vsweeney@cehi.org.lc **Partners** : Instituto Nacional de Recursos Hidráulicos (INRH), Ministerio de la Agricultura (MINAGRI), Instituto de Oceanología (IDO), Ministerio de la Industria Pesquera (MIP), Instituto de Ecología y Sistemática (IES), Ministerio de Transporte (MITRANS), Ministerio de Salud Publica (MINSAP), Centro Nacional de Areas Protegidas (CNAP), Instituto de Meteorología. **Potential Partners:**	The project will aim to review current actions on aquatic system monitoring and estimated polluting loads by point sources and those originating from marine port activity, dedicating efforts to identify technological sound alternatives to industrial and domestic wastewater treatment, taking into account their possible reuse through recycling in an overall coherent Program, while integrating all the elements that correspond to the IWCAM concept. Outputs will provide important and reliable information directed toward the stakeholders and decision makers. The project will also work in pilot areas that will show the advantage of good practices in the agriculture and forest sector with emphasis in the development of organic agriculture and reforestation of the fringes near riverbanks and mountain area decreasing erosion and transport of solids to the rivers. These demonstration areas will be developed into training centers that give all the elements for "in house" and regional replication. Furthermore public awareness and environmental education will aim to achieve a better integration of the community into the improvement of the environmental conditions in the basin and in the coastal area. The specific activities include: 1. a survey of point source of pollution and estimation of load discharges; 2. an assessment of wastewater treatment alternatives and recycling for the principal point sources of pollution; 3. identification of actions and financial resources for reduction of pollution load in a five-year program; 4. environmental Monitoring Program including the watershed and coastal area focusing on water quality as main component; 5. implementation of reduction of organic load and wastewater recycling in a sugar cane factory (training facility for replication); 6. elaboration of a Master Plan for wastewater management and treatment in Cienfuegos City; 7. establishment of best

	agricultural practices in two organic agricultural farms. In a riverbank and in a mountain area (training facilities for replication); 8. construction and operation of four reforestation farms (training facilities for replication); and 9. establishment of a public awareness and capacity building Program with community participation within IWCAM concepts
Haiti - Sustainable and Integrated Management of Coastal Ecosystems in the Artibonite River Delta	
Lead(s): Joseph Ronald Toussaint Msc, National Environmental Action Plan Secretariat/MOE, Haiti **Partners:** Dr Eliot Hamilcar, Pilot Coastal and Marine Management Programme/MOE, Dimitri Noris Msc, Technical Direction of the MOE, Dr Marie Alice Limage, Health and Environment. **Point of contact:** Vincent Sweeney, CEHI, vsweeney@cehi.org.lc **Partners** : Ministry of Agriculture, the Ministry of Planning, the Ministry of Public Works CIDA, GTZ, FAO, CCC **Potential Partners:** CEHI, CCA, PAHO, CANARI	The Artibonite Delta is considered as one of the most important wetlands of the country. The area surrounding the Bay includes mangroves and flat, tidal to semi-tidal lands which provide feeding habitat for hundreds of flamingos, shorebirds and migratory birds. However, the area is at risk due to overfishing, destruction of the feeding and breeding habitats due to poor fishing practices, soil erosion and pollution from agriculture and raw sewage. The presence of water hyacinth serves as an indicator of pollution problems and high nutrients levels in the Delta, and obstructs light and oxygen, destroys fishing nets, obstructs water transport and blocks water inlets The proposed demonstration project will: 1. promote sustainable community-based management of mangrove forests, valuable reefs and seagrass beds; 2. provide enabling conditions for preserving and to sustainably manage coastal ecosystems in the area; 3. establish an applied research program in the area to support coastal zone management and continuous long-term environmental monitoring in the country; and 4. mitigate the threats posed to the coastal ecosystems of the Delta and empower local residents, institutions and authorities for the natural resources management as part of the local development. Specific activities will include community-based wetland management aiming at conserving the wetlands and using them sustainably in order to improve their buffering capacity, reducing the distribution and abundance of the water hyacinth through mechanical and biological controls, establishing a database on fish biology and ecology, aquatic biodiversity and socio-economic characteristics of the fishery stakeholders, providing training and appropriate equipments for the fishing of fish stocks in order to avoid depletion of these resources, strengthening and expanding marketing capabilities for fishery and salt production, promoting micro-projects as small investments intended to address the concerns directly related to the communities.
Jamaica – An Integrated Approach to Managing the Marine, Coastal and Watershed Resources of East-Central Portland	
Lead(s): Thera Edwards, NEPA Partners: Donna Blake and Leonie Barnaby Ministry of	This project aims to use the newly proposed Port Antonio Marine Park and Forest Corridor (PAMP), (under the protected areas system plan), in the northeast of Jamaica, to demonstrate an integrated costal and

Land and Environment; Suzanne Davis, Institute of Jamaica; Elaine Fisher, SBSTTA-FP; Merline Bardowell, National Commission on Science and Technology Secretariat, Office of the Prime Minister; Carole Excell, National Environment and Planning Agency; **Point of contact:** Vincent Sweeney, CEHI, vsweeney@cehi.org.lc **Partners** : NEPA; USAID, CANARI **Potential Partners:** CEHI, UNDP, CCA	watershed management strategy approach to management of a continuous area stretching from a mountain ridge to the marine environment. This area includes a forest corridor. The project aims to build on initiatives already developed through previous and existing projects with specific focal points of interest within the Portland area. The area is of major importance for farming, fishing and tourism. Although the problems are understood (solid waste management; improper land management; sanitation/pollution; unemployment; flooding/drainage), addressing them requires analysis of the organisations, interventions, policies and legislation currently applicable to the Port Antonio marine and forest corridor area so as to identify gaps in policy, legislation and institutional arrangements. Incentives and constraints to achieving this corridor approach to integrated coastal and watershed management will also need to be identified. Local partners will be used to implement the project so that the Local Sustainable Development Planning and local government reform process which seeks to move towards governance will also be supported. It is the aim of the project to demonstrate how an integrated coastal and watershed management strategy can be effective. It will be adaptive beyond the immediate PAMP area so that the benefits will be felt in the wider Portland parish. It should also be robust enough to be applied to areas outside of the current protected areas system. More specifically the project will for the first time have a continuous area in a corridor from a mountain ridge (The John Crow Mountains) to the marine environment under management.
Dominica – Sustainable Management of Watershed-Related Resources in the Carib Territory	
Lead(s): Guarocuya González – Ministry of Environment and Natural Resources) **Point of contact:** Vincent Sweeney, CEHI, vsweeney@cehi.org.lc **Partners** : The Government of the Commonwealth of Dominica, The Carib People, CDB, PAHO, CCA, CREP, NEPA, FAO **Potential Partners:**	This project aims to obtain the reduction of pollutants in the hydrographic basin of Haina river, located on the south coast of the country. The implementation of this program will improve, mitigate and/or solve the environmental situation of the zone that affects the hydrographic river basin and the coastal zone, as well as to all the population that benefits from the resources contributed within the basin. To achieve this objective, the project will undertake implement a cleaner production program integrated with the industries; create a management plan after studying the heavy metal contamination in the region; implement a cleaning program for the ravines; create and implement a management programme for the hydrographic basin; implement a programme for protection and restoration of damaged coast; implement an industrial-solid-waste management programme to classify, reduce, reutilise and recycle the solid waste; perform a landfill-handling program to improve the industrial management of the landfill site.

CEHI, CIDA, IICA, UNDP	Among the outputs expected are: an improvement in the quality of the ecosystems, the biodiversity of the species of the water of the river and the coastal zone; a reduction in the diseases caused by the deterioration of the environment and thus a reduction in morbidity and mortality rates of the population; public and private institutional fortification; a reduction in the duplicity of efforts of diverse institutions; and the production of model to replicate the project in the country and in the region.
Trinidad and Tobago – Community-Linked Data collection and Watershed Restoration as Part of a Focused IWCAM Demonstration in the Courland Watershed and Buccoo Reef Area	
Lead(s): Owen Day, Buccoo Reef Trust Sheryl Anne Haynes, Tobago House of Assembly Kerry Mulchansingh, Water Resources Agency, WASA Mr. Anthony Bartholomew Permanent Secretary Ministry of Public Utilities and the Environment **Point of contact:** Vincent Sweeney, CEHI, vsweeney@cehi.org.lc Owen Day o.day@buccooreef.org **Partners** : Buccoo Reef Trust Tobago House of Assembly, Central Government of Trinidad and Tobago, UWI, CREP, CCA, *CDB,* **Potential Partners:** CEHI Coral Cay Conservation Blue Flag Campaign U.S. Geological Survey	**Lead(s):** Owen Day, Buccoo Reef Trust Sheryl Anne Haynes, Tobago House of Assembly Kerry Mulchansingh, Water Resources Agency, WASA Mr. Anthony Bartholomew Permanent Secretary Ministry of Public Utilities and the Environment **Point of contact:** Vincent Sweeney, CEHI, vsweeney@cehi.org.lc Owen Day o.day@buccooreef.org **Partners** : Buccoo Reef Trust Tobago House of Assembly, Central Government of Trinidad and Tobago, UWI, CREP, CCA, *CDB,* **Potential Partners:** CEHI Coral Cay Conservation Blue Flag Campaign U.S. Geological Survey
Antigua and Barbuda - Mitigation of Pollution from Sewage Discharges from St. John	
Lead(s): Diane Black Layne, Chief Environment Officer Partners: Brian Cooper and	The proposed demonstration project aims to address the problem of inadequate sewage treatment and disposal from the Capital St. John. The current impacts of the lack of such management practices include

Vincent Bowen, Environment Division, Ministry of Tourism and Environment; Adelle Blair, Ministry of Tourism and Environment **Point of contact:** Vincent Sweeney, CEHI, vsweeney@cehi.org.lc **Partners** : The Government of Antigua and Barbuda, PAHO (Retrofitting sewage treatment & Conflict Resolution), NEPA (Kingston – Causeway. Sewage Connection), UWI Mona – flushing and sediments **Potential Partners:** CEHI, UNDP	microbiological pollution, chemical pollution and suspended solids in the St. John Harbour. Phase one of this project proposes the securing of expertise on sewage handling and treatment to design street-level systems to handle domestic waste. This will lead to the discharge of a higher quality effluent into the harbour. This will be implemented in phases to minimize disruption and it will be accompanied by a public education campaign. At the same time, designs would be drawn up to convert existing ponds and lagoons on the outskirts of St. John into a wetland filtration system. A natural drainage run has been identified which could incorporate Woods Pond in its upper reaches and then flow into McKinnon's Pond. The latter is a large lagoon area, which was closed off to the sea some 15 years ago to accommodate a road. The pond can be converted to provide the necessary conditions to reinstate a natural and healthy lagoon system. Once this pond-lagoon system has been developed to provide a wetland filtration sequence, the improved effluent discharges to St. John's Harbour would be re-routed into this filtration sequence.

Bahamas - Marina Waste Management at Elizabeth Harbour, Exumas

Lead(s): Rochelle Newbold, BEST Partners: The Honorable Earl Deveaux, Dr. Donald Cooper and Ms. Nakira Gaskin, BEST; Mr. Philip Weech, The Water and Sewerage Corporation; Brendan Sweeney, ICF Consulting **Point of contact:** Vincent Sweeney, CEHI, vsweeney@cehi.org.lc **Partners** : Bahamas Environmental Science and Technology Commission (BEST), Elizabeth Harbour Management Partnership, Bahamas Water and Sewerage Cooporation, *CCA* (Blue Flag), CCC, CWC	This project aims to address the problems associated with inadequate solid and wastewater management in the Exuma Keys. The activities proposed include conducting a survey of existing discharge and solid waste disposal practices in Elizabeth Harbour and implementing a water quality monitoring programme for Elizabeth Harbour. In recognition of the role of the commercial sector along the coastline in terms of restaurants and shops that cater to the 5-600 boats that visit Exuma daily, it aims to create an Elizabeth Harbour Management Partnership (EHMP) involving the government, community and the commercial sector. The project also intends to make amendment recommendations to legislation and a proposed compliance plan (including new requirements for all further constructions, both private and commercial). Other outputs of the project include a report on optional technologies relevant to Elizabeth Harbour; identification of funding for upgrading of waste collection and/or treatment (private domestic as well as commercial) as well as reception facilities for yachts (charge per yacht); demonstration of upgrading processes; alternative waste management strategy for Elizabeth Harbour; monitoring of implementation of strategy by EHMP; and replication of strategy in other harbours and marinas in Bahamas.

Potential Partners: CEHI, PAHO, UNDP	
Dominican Republic - Environmental Cleaning of the Low Haina River Basin and its Coast (Proyecto de Saneamiento Ambiental de la Cuenca Baja del Río Haina y su Litoral)	
Lead(s): Alejandro Herrera Moreno, National Environmental Protection Institute (INPRA) **Point of contact:** Vincent Sweeney, CEHI, vsweeney@cehi.org.lc **Partners** : **Potential Partners:** CEHI, PAHO, UNDP, CANARI,	This project aims to obtain the reduction of pollutants in the hydrographic basin of Haina river, located on the south coast of the country. The implementation of this program will improve, mitigate and/or solve the environmental situation of the zone that affects the hydrographic river basin and the coastal zone, as well as to all the population that benefits from the resources contributed within the basin. To achieve this objective, the project will undertake the repair of the wastewater plant; implement cleaning programs for the ravines; execute public education programs for the community to avoid the solid waste contamination to the ravine; construct and repair latrines, and implement cleaning-share programs for existing ones; implement a programme of solid waste management to classify, reduce, reutilise and recycle; conduct a study of the heavy metal contamination in the region and a management plan; create and implement a management programme for the hydrographic basin; implement a programme for protection and restoration of damaged coast; execute a handling programme to mobilize solid waste to accessible sites for bulk transport; and perform a landfill-handling program to improve the management of the existing landfill sites Among the outputs expected are: an improvement in the quality of the ecosystems, the biodiversity of the species of the water of the river and the coastal zone; a reduction in the diseases caused by the deterioration of the environment and thus a reduction in morbidity and mortality rates of the population; public and private institutional fortification; a reduction in the duplicity of efforts of diverse institutions; and the production of model to replicate the project in the country and in the region.
St. Vincent and the Grenadines - Management of Land-Based Sources of Pollution at Calliagua Bay	
Lead(s): Reynold Murray, Ministry of Health and Environment **Point of contact:** Vincent Sweeney, CEHI, vsweeney@cehi.org.lc	The project will aim to review existing legislation relating to discharges (land-based and from recreational vessels), assess enforcement requirements, design and implement a strategy for monitoring and enforcement, evaluate alternative approaches and technology for small-scale sewage and domestic wastewater treatment (which can be provided to future developers as required options), and design and execute a programme of public awareness and community relations relevant to wastewater treatment and legislative compliance.

Partners : The Central Water and Sewerage Authority; The Government of St. Vincent and the Grenadines, PAHO, NEPA (info sharing) **Potential Partners:** CEHI, UNDP	The specific activities which this project will undertake include: a survey of existing discharge regime in Calliagua Bay; a water quality monitoring programme for the Bay; creation of a Calliagua Bay Management Partnership (CBMP) involving government, community, commercial sector; amendment recommendations to legislation and proposed compliance plan (including new requirements for all further constructions, both private and commercial); a report on optional technologies relevant to the Bay; identification of funding for upgrading of treatment (private domestic as well as commercial); alternative wastewater management strategy for the Bay; monitoring of implementation of strategy by CBMP; and replication of strategy in other embayments and coastal areas (e.g. Bequia, Union Island, etc)
Bahamas - Land Use Planning for Water Recharge Protection in Andros, Bahamas	
Lead(s): The Honorable Earl Deveaux, BEST Partners: Rochelle Newbold, BEST Commission, Bahamas **Point of contact:** Vincent Sweeney, CEHI, vsweeney@cehi.org.lc **Partners** : **ANCAT, CCA, CREP, University of Miami, BREEF (Bahamas Reef Environment Education Foundation), IDB.** FAO (Planning/zoning tech. asst), CREP, IDB. CCC **Potential Partners:** CEHI, UNDP	The aim of this project would be to demonstrate development of a Land and Sea Use Plan including zoning for all user practices. This Plan would be adopted as a formal government policy and enacted in law where appropriate. Zoning would be achieved through an integrated combination of GIS, ground surveys (where required) and community participation (including local District Councils). Data gaps would be identified and survey strategies would be included in the Plan to fill such gaps as well as to respond to the needs of policy makers to address specific issues or request with data upon which to base the decision-making process. A long-term mechanism for updating and fine-tuning the Plan (with detailed review every 10 years) would be identified, again with an emphasis on data collection for decision-making. The required physical infrastructure would be developed (staff and equipment) and the sustainable maintenance of such a structure demonstrated. The intention would be to prove the value and efficacy of such a Land and Sea Use Plan (LSUP), and to replicate this throughout the Bahamas (as well as other countries within the regional IWCAM project). Linked to the protection of the water recharge processes would be the need to reduce water wastage and increase water use efficiency within the private and public sectors, especially related to tourism in New Providence which is placing the heaviest demands on the water supplies under Andros.
St. Vincent and the Grenadines - Water Resource and Waste Water Management in the Grenadines	
Lead(s): Reynold Murray, Ministry of Health and Environment **Point of contact:** Vincent Sweeney, CEHI, vsweeney@cehi.org.lc	The aim of this project would be to undertake a detailed assessment of existing water resources and community needs, to assess current wastewater practices and their impact on the environment, to assess current and future wastewater and solid waste treatment requirements, to assess the socio-economic implications of removing water shortage as a restriction to development, in the grenadine Islands. It will also undertake a demonstration of water and waste management on a

Partners : CERMES-UWI, CCA, PAHO, FAO **Potential Partners:** CEHI, UNDP	selected island (e.g. Union) as a model example of an integrated management approach specific to the needs of small islands. Specific activities will include a survey and assessment of available water resources and demands by the existing indigenous and transitory (tourist) population; and a study of current waste disposal practices; an assessment of available technologies and their applicability to the Grenadines situation (cost-effective, maintainable, sustainable, low impact, etc.); a presentation of options for development in the Grenadines (addressing water, waste, future developmental impacts, etc); and develop a model strategy for demonstrating sustainable, integrated water and waste management in the small island context. The second phase of the project will include: implementation of the model strategy; development of water resource management approach and construction of related facilities (e.g. desalination, water recycling, metering, transferred benefits from high-volume users to sustainability of management); development of a waste treatment approach and construction of related facilities, including integration into water management via recycling, irrigation, etc.; monitoring of water quality, etc to ensure efficacy of model strategy; feedback from monitoring into management and maintenance policies; development of national capacity to construct and maintain model facilities; and replication of successful, sustainable elements of the model strategy in other Grenadine island situations.
Barbados - An Integrated Approach for the Management and Protection of the St. Michael Groundwater Unit and Coastal Area	
Lead(s): Leo Brewster, Coastal Zone Management Unit, Ministry of Environment, Energy & Natural Resources Partners: John Mwansa, Barbados Water Authority; **Point of contact:** Vincent Sweeney, CEHI, vsweeney@cehi.org.lc **Partners** : IDB, Government of Barbados, CDB (leakage) UWI, **Potential Partners:** CEHI, CPACC/MACC, FAO	This project aims to address the issue of integrating desalination into the overall management of water resources management. It will look at the management and protection of the St. Michael catchment as this catchment therefore provides a wide array of issues suitable for the pilot implementation of a long-term Integrated Water Supply Conservation and Management approach that can be shared with other Caribbean SIDS with similar hydrological conditions. A lot of other Caribbean islands are now forced to look at desalination as an option and Barbados could be a pilot for how to incorporate desalination into a water supply strategy in an environmentally sustainable manner. Project activities include: assimilation of all existing groundwater-related data and information and identification of gaps; development of a data collection programme including necessary boreholes for profiling and mapping aquifer and interface, as well as comprehensive water quality testing; development of long-term data collection networks (Rainfall, salinity profiles, water quality, land and coastal area uses, pollution sources survey, coastal ecosystem inventory and monitoring programme, procurement of equipment) and data analysis; definition of appropriate land-use strategy and revision/improvement of zoning in aquifer(s); definition of a short- and long-term strategy to address sewage infiltration into aquifer; undertaking of a detailed study of the effects of desalination on the freshwater lens and marine environment, as well as the potentially harmful impacts to desalination

	intakes (feeder wells); review of the potential effects of sea level rise on water conservation and extraction; review of the overall water usage and conservation strategy for Barbados; and presentation of a policy document to government.
Grenada - Managing Surface Freshwater Ecosystems for Improved Supply and Sustainability	
Lead(s): Lyndon Robertson, Ministry of Health **Point of contact:** Vincent Sweeney, CEHI, vsweeney@cehi.org.lc **Partners** : NAWASA. CDB, DFID, FAO, CERMES-UWI **Potential Partners:** CEHI, UNDP	This project aims to undertake a study of the feasibility of plans to increase the volume and quality of surface water from Grand E'tang Lake. Proposed under this project are an overall study of the possible expansion of surface water catchment and extraction, while reducing surface water run-off and consequent sediment and chemical run-off. Also a more general survey on aquifer distribution and potential, and desalination pros and cons. This should include a cost assessment linked in with an EIA, which takes into account the long-term sustainable value of the ecosystem and its surface water maintenance and provision functions. Project activities include: a detailed biological and hydrological survey of the 3 primary surface water production lakes including their watersheds and surface water feeds; a feasibility study for cleaning and additional extraction from Grand'E'tang; a feasibility study for surface water extraction from Lake Levera; a set of recommendations addressing the need for additional extraction from surface water supplies while sustaining the ecosystem functions of those supplies; a study and strategy to reduce losses in the system as well as wastage; implementation of the findings of the above studies into actions on the ground; an overall survey of long-term water resources and production in Grenada (including the distribution and production rates of the existing aquifers, and the potential for desalination); development of a cost-effective water quality monitoring strategy in cooperation with our national and regional institutions; a final water resource development and management policy for Grenada (cost assessments, environmental implications, recommendations on 'beneficiary-pays' schemes for financial sustainability); an Awareness Initiative addressing the general public, the policy and decision-makers in government, and industry (tourism, factories, polluters and beneficiaries); and a pilot watershed community management programme for one selected watershed.
St. Kitts and Nevis - Rehabilitation and Management of the Basseterre Valley a Protection Measure for the Underlying Aquifer	
Lead(s): Partners: Bernard Welsh, Water Services Department, St. Kitts **Point of contact:**	The Basseterre Valley lies above the most heavily used aquifers in St. Kitts. The aim of the project is to demonstrate the proper management and protection of a critical aquifer and wellfield through the designation of said area as a National Park and through a programme of reintroduction of native species (plant and animal) which will help to stabilise the soils, re-establish the natural ecosystem, and to remove

Vincent Sweeney, CEHI, vsweeney@cehi.org.lc **Partners** : St. Christopher Heritage Society (SCHS); FAO, European Union and the Marriott Hotels group. **Potential Partners:** CEHI	chemicals which may already be established in the water table. This approach will be integrated into local socio-economic requirements by developing the area as a paying tourist attraction properly managed, to achieve some level of sustainability for monitoring and public awareness. The activities for the project include: approval of a Basseterre Valley National Park Development and Management Plan; revision and strengthening of the Basseterre Valley Advisory Committee (full participation); suitable fencing (or other approaches) to prevent grazing by goats, sheep, cattle; development of a nursery for plants and a breeding programme for native animals (if appropriate); reinstatement of agreed native species; adoption of a long-term monitoring programme for water and soil quality; reaffirmation of the sustainable extraction rates and potential threats; development of drainage channels to divert threats; implementation of an NGO-driven public awareness programme at the community and tourist level; capture of tourism funds into management and maintenance of Park; input from tourism-related commercial activities (transfer of benefits) to support the Park.
St. Lucia - Valuing Water Protection Services and Developing Management Incentives in the Mabouya Valley Watershed	
Lead(s): Partners: Deborah Bushell, Ministry of Agriculture, Forestry and Fisheries **Point of contact:** Vincent Sweeney, CEHI, vsweeney@cehi.org.lc **Partners** : Sandals, EU, CANARI, CREP, FAO **Potential Partners:** CEHI, UNDP	This demonstration project would look at the overall needs of water management in a particular catchment/watershed with respect to data collection and processing requirements, identification and valuation of water services, identification and quantifying of threats and wastage, improvements in management (including community level) and implementation of incentives and transfer of benefits from water users (coastal and lower watershed) to water resource managers (mid- to upper-watershed stakeholders). There are several examples of good (and bad) practices for water resource management and conservation through strong institutional arrangements throughout the Caribbean. Most of these are related to statutory bodies and good working relations between such bodies and other stakeholders in forestry and agriculture. Management staff should take the opportunity to visit such working arrangements and capture such lessons. The activities to be undertaken under the project include: the capture of Best lessons and Practices within the Region (Study tour); the strengthening of database and monitoring programme for water resources (quality and quantity, distribution, etc); valuation of watershed management services as well as the cost of impacts to water quality and supply; identification and implementation of incentives and transferable benefits for water conservation; provision of sustainable support, and expansion of the practices of using water catchment community groups for monitoring and management; and watershed Stakeholder Forum.

Regional – Environmental Status Indicator Monitoring and Use for Policy Reform	
Lead(s: **Point of contact:** Vincent Sweeney, CEHI, vsweeney@cehi.org.lc **Partners** : CEHI, LAVAL University **Potential Partners:** UNDP, CIDA	This demonstration project would coordinate with a jointly implemented (CEHI, CIDA, Laval University) regional initiative currently under consideration called 'Improving Caribbean Environmental Health'. CIDA is proposing to fund this initiative the value of CD$6 million. The demonstration would also coordinate with the Caribbean Blue Flag Campaign which is a voluntary certification scheme for beaches and marinas that has proven to be very effective in Europe as an environmental tool to enhance safety management and environmental quality. One activity within this initiative is the provision of a mobile laboratory which can 'tour' the islands to undertake monitoring. As part of the GEF IWCAM Demonstration, training for the collection of appropriate water quality measurements plus the provision of simple equipment packages for each country could help to build sustainability. The activities to be undertaken under the project include: adoption of a regional data processing centre (RDPC) for national water quality data; letters of Agreement between a RDPC and national agencies/NGOs to collect the required data and transmit it to the RDPC; production of a Regional State of Water Quality report; a strategy for presentation and discussion of this data at a regional level; and a strategy for opening negotiations between governments and private sector beneficiaries at the national level.

MARINE ECOSYSTEM MANAGEMENT

Co-chair: Kenneth Sherman, NOAA, (401)782-3210, kenneth.sherman@noaa.gov
Co-chair: Robin Mahon, UWI, 246-417-4570, rmahon@caribsurf.com
Co-chair: Alfred Duda, GEF, 202/473-1077, aduda@thegef.org
Program liaison: Nancy Daves, NOAA-Fisheries, 301/713-2319, nancy.daves@noaa.gov

Sustainable Management of the Shared Marine Resources the Caribbean LME and Adjacent Regions

Lead(s): GEF **Point of Contact(s):** Al Duda aduda@thegef.org **Partners:** Ken Sherman (NOAA), Robin Mahon (UWI), Al Duda (GEF), Cesar Toro (IOCARIBE), Kristin Sherwood (IUCN - Global Marine Program) **Potential Partner(s):** Wider Caribbean governments and inter-governmental organizations, academic institutions, NGOs	Sustainable use and protection of the transboundary living resources of the Caribbean LME and their key habitat are the subjects of this project, which is still under early phases of development. Planned with the assistance of UNDP and IOCARIBE, the project will cover up to 29 nations (and associated island states) of the Wider Caribbean Region that share the large marine ecosystem. The objective of the project is to help achieve sustainable management of the shared living resources of the LME and adjacent areas through integrated approaches that will meet the WSSD targets related to sustainable fisheries and ecosystem-based approaches to management. Gaps in understanding transboundary resources will be filled that will lead to introduction of an ecosystem-based approach to assessment and management of the living resources of the LME. With the many institutions that exist in the Caribbean region, the project may assist the countries to sort out management responsibilities and will build capacity to undertake needed policy, legal, and institutional reforms to meet the WSSD targets. proposal for the full project (10 years) *Other WW2BW Sub-committees: Marine Science; Integrated Watershed Management*

Fisheries governance in the Caribbean

Lead(s): Robin Mahon, UWI **Point of Contact(s):** Robin Mahon, UWI, rmahon@caribsurf.com **Partners:** Milton Haughton (CRFM), Bisessar Chakalall (FAO), Caribbean Fishery Management Council, fisheries departments in the region **Potential Partners:** Wider	The need for a mechanism to manage transboundary fishery resources in the Wider Caribbean has long been recognized, but never achieved. This is one of the primary objectives of the IOCARIBE Caribbean Large Marine Ecosystem Project and will be pursued in the upcoming project development activity. At its most recent meeting in St. Georges, Grenada (21-24 October 2003), the Western Central Atlantic Fishery Commission (WECAFC) recommended the establishment of an intersessional working group to study how strengthened regional management cooperation could be achieved and expressed its wish that participants at the WW2BW Miami meeting support this intersessional work. There is also a current proposal by CARICOM-Fisheries for such an accord. The interrelation of these efforts, as well as other initiatives in the region, should be thoroughly explored.

Caribbean governments, Intergovernmental organizations, academic institutions, NGOs	*Other WW2BW Sub-committees: Marine Science*

Financing of Marine Protected Areas

Lead(s): Paul Hoetjes, Netherlands Antilles **Point of Contact(s):** Paul Hoetjes, (Ministry of Environment, Netherlands Antilles) paul@mina.vomil.an Scott E. Smith (TNC) ssmith@tnc.org **Partners:** UNEP-CEP/RCU, GCFI, TNC, TOC, IUCN, ED, CI, WRI, government of TCI, NOAA **Potential Partner(s):** donor organizations, Wider Caribbean governments, NGOs	Although many protected areas receive start-up funding, if on-going financing is not found, the area is destined to remain a "paper park" which provides no real protection for its natural resources or benefits to its users. This breakout session will aim to catalyze partnerships among NGOs, governments, intergovernmental organizations and academic institutions to put in place solutions to the challenges of long-term funding for MPAs and MPA networks. To achieve sustainable financing, MPAs need to increase their funding baselines and dampen oscillations, i.e., the typical "boom-and-bust" cycles. No single source of financing is likely to be sufficient to cover, on a long term, reliable basis, the recurrent and investment costs needed to effectively manage MPAs and MPA networks. Financing strategies will require a diverse range of funding mechanisms and creative approaches to involve and share costs with those who have a stake in the resources protected by these MPAs. Different sources of funding have different characteristics. Some are appropriate for certain types of expenditures but not for others. Some sources will operate at a local level, while others will function at a national or system-wide level. Some can generate recurrent funding flows, while others are best for shorter-term infrastructure or investments. Still others are not be mechanisms to generate resources, but instead are management approaches that lower costs and engender a greater sense of ownership for and participation in conservation and sustainable development by key stakeholders. *Other WW2BW Sub-Committees: Sustainable Tourism*

U.S./Mexico Partnership for the Gulf of Mexico Collaborative Coastal Monitoring Systems Development and Integration: The Harmful Algal Blooms Observing System (HABSOS)

Lead(s): Bryon Griffith; Patrick Cotter (EPA); Larry Sperling (state) **Point of Contact(s):** Bryon Griffith, Griffith.Bryon@epamail.epa.gov **Partners:** Governments of Mexico and US; US and	HABSOS is a multi-agency, binational initiative to develop a virtual HAB data, communication, and decision support system for Gulf of Mexico state resource managers to monitor, forecast and predict algal bloom dynamics. The pilot project includes all eleven Binational U.S./Mexico States bordering the Gulf of Mexico, thus representing a total collaboration of all parties within one of the world's major Large Marine Ecosystems (LME). *Other WW2BW Sub-Committees: Marine Science; Integrated Watershed*

Mexican state governments **Potential Partners:** All Wider Caribbean Governments	*Management*
Pollution and Ecosystem Health – Key indicators used to measure the condition of coastal ecosystems	
Lead(s): US Environmental Protection Agency **Point of Contact(s):** Dr. Kevin Summers, Summers.Kevin@epamail.epa.gov **Partners:** Federal, state, and local governments participating in marine ecosystem-based management activities **Potential Partners:** Wider Caribbean countries	In several Large Marine Ecosystems, pollution has been a principal driving force in changes of biomass yields. Assessing the changing status of pollution and health of the entire LME is scientifically challenging. Ecosystem "health" is a concept of wide interest for which a single precise scientific definition is problematical. Methods to assess the health of LMEs are being developed from modifications to a series of indicators and indices described by several investigators. The overriding objective is to monitor changes in health from an ecosystem perspective as a measure of the overall performance of a complex system. The health paradigm is based on multiple-state comparisons of ecosystem resilience and stability and is an evolving concept. To be healthy and sustainable, an ecosystem must maintain its metabolic activity level and its internal structure and organization, and must resist external stress over time and space scales relevant to the ecosystem. Data from which to derive indices are obtained from time-series monitoring of key ecosystem parameters. The ecosystem sampling strategy is focused on parameters relating to resources at risk of overexploitation, species protected by legislative authority (marine mammals), and other key biological and physical components such as plankton, nutrients, and hydrography. ish, benthic invertebrates, and other biological indicator species are used in the Pollution and Ecosystem Health module to measure pollution effects on the ecosystem. The routes of bioaccumulation and trophic transfer of contaminants are assessed, and critical life history stages and selected food chain organisms are examined for parameters that indicate exposure to, and effects of, contaminants. Effects of impaired reproductive capacity, organ disease, and impaired growth from contaminants are measured. Assessments are made of contaminant impacts at the individual species and population levels. Implementation of protocols to assess the frequency and effect of harmful algal blooms, emergent diseases and multiple marine ecological disturbances are included in the pollution and ecosystem health module. *Other WW2BW Sub-Committees: Marine Science; Integrated Watershed Management*
Development of socio-economic monitoring guidelines for marine protected areas	
Lead(s): Patrick McConney, UWI; Leah Bunce, NOAA-NOS	The success of marine protected areas depends, in large part, on their acceptance by stakeholders. SocMon is a set of guidelines for establishing a socioeconomic monitoring program at a coastal

Point of Contact(s): Patrick McConney, CERMES, nrmoutreach@caribsurf.com **Partners:** CERMES, CCA, NOAA **Potential Partners**: Wider Caribbean governments, Intergovernmental organizations, academic institutions, NGOs	management site in the Caribbean. It is intended to: • Provide a methodology for regularly collecting basic socioeconomic data useful to coastal management at the site level; and • Provide a basis for a regional system by which site-level data can feed into national, regional and international databases for comparison. *Other WW2BW Sub-Committees: Marine Science*
Educating for a Sustainable Future	
Lead(s): Karen Eckert, WIDECAST **Point of Contact(s):** Karen Eckert, WIDECAST, widecast@ix.netcom.com **Partners:** TBD **Potential Partners:** Biodiversity Education Network, Mote Marine Lab, GCFI, Caribbean governments	This session will focus on how the conservation of depleted and endangered species can be made "real" to people in the Wider Caribbean, whether residents or visiting tourists. If we start our discussions from the premise that biodiversity loss is EVERYONE'S loss, and everyone needs to participate at the point at which they personally intersect with the problem. What are those points of intersection, and how do we seize the opportunity to make people viscerally aware of those points of intersection ... and the consequences to all our lives of continuing to do essentially nothing to stem the tide of loss? *Other WW2BW Sub-Committees: Education; Sustainable Tourism*
Strengthening of Fisheries Enforcement in the Wider Caribbean	
Lead(s): Michele Kuruc **Point of Contact(s):** Michele Kuruc, Paul Raymond, NOAA; John Gavitt, WildAid **Partners:** TBD **Potential Partners:** Wider Caribbean governments, NGOs	As the region considers enhancement of governance of marine resources in the region, methods of enforcement of local and inter-governmental fisheries laws should be considered. One way to do this could be extension into the Caribbean of the Monitoring, Control and Surveillance (MCS) Network for Fisheries Related Activities. This program links fisheries enforcement personnel in order to more effectively enforce conservation measures designed to protect world fisheries and ecosystems. Membership in the Wider Caribbean is low, but would be beneficial to the region. Another tool for enforcement of fisheries and wildlife laws is the U.S. Lacey Act, which prohibits the importation into the United States of fisheries and wildlife products that were taken in contravention of the laws of the range State country. NGO initiatives, such as the WildAid project to facilitate enforcement of marine reserves, will be also discussed by the participants. *Other WW2BW Sub-Committees: Environmentally Sound Marine Transportation*

Marine Protected Area Networks	
Lead(s): Bob Glazer, GCFI **Point of Contact(s):** Bob Glazer, bob.glazer@gcfi.org **Partners:** GCFI, TNC, UNEP-CEP, WRI, ED, University of Puerto Rico, IUCN Global Marine Program **Potential Partners:** many	Consistent with the recommendations of the 2002 World Summit on Sustainable Development (WSSD) and the Vth IUCN World Park Congress (2003), this partnership would seek to establish a system of effectively managed, representative network of marine and coastal protected areas, consistent with international law and based on scientific information. This partnership will focus on enhancing existing partnerships that bring together Marine Protected Area Managers, Researchers, administrators, Governmental, NGOs, and other stakeholders to develop a wide and inclusive network for communication and exchange of ideas. Additionally, to develop partnerships to ask critical questions regarding gaps in scientific knowledge relative to connectivity in diverse spatial and temporal scales. *Other WW2BW Sub-Committees: Marine Science, Integrated Watershed Management, Sustainable Tourism*
Development of a Caribbean wide stranding network	
Lead(s): NOAA Fisheries (Protected Resources), St. Georges University, Grenada; IFAW **Point of Contact(s):** Janet Whaley, NOAA-Fisheries, janet.whaley@noaa.gov **Partners:** NOAA Fisheries (Protected Resources), St. Georges University, Grenada; IFAW **Potential Partners:** governments, academic institutions and NGOs in the Wider Caribbean	Unusual mortality events of marine mammals, sea turtles and fish can provide insight into ocean health if there is ground response to animal strandings and collection of relevant data. In the Wider Caribbean Region, there is an urgent need for capacity building in this area, including training in methods of sample collection, archiving of samples and establishment of an on-line data base for findings. *Other WW2BW Sub-Committees: Marine Science*
International Coral Reef Action Network (ICRAN)	
Lead(s): **Point of Contact(s):** Alessandra Vancella-Khouri, UNEP-CEP, avk.uneprcuja@cwjamaica.com	The International Coral Reef Action Network (ICRAN), established in the year 2000, is a collaborative effort working to halt and reverse the decline in health of the world's coral reefs. The founding partners came together in a public-private response to the "Call to Action" of the International Coral Reef Initiative (ICRI) and to help implement the ICRI's "Framework for Action", the internationally agreed blueprint for conservation of coral reefs.

Partners: United Nations Environment Programme (UNEP), WorldFish Center (formerly ICLARM), World Resources Institute (WRI), UNEP-World Conservation Monitoring Center (UNEP-WCMC), Global Coral Reef Monitoring Network (GCRMN), International Coral Reef Initiative (ICRI) Secretariat, Coral Reef Alliance (CORAL), and the UN Foundation	Through ICRAN a set of interlinked and complementary activities are being implemented to enable the proliferation of good practices for coral reef management and conservation, which also constitute the implementation of the International Coral Reef Initiative's Framework for Action as well. The activities of ICRAN fall into three components, namely, management action, coral reef assessment and communication. In addition, the UNEP-Regional Seas Programme for the Caribbean, main ICRAN partner at the regional level, plays a leading role in practical conservation action to protect and manage targeted coral reef ecosystems and complements ICRAN's activities in the region through its other regional initiatives.
Fish and Ocean Observation System (FISHOOS) for Fisheries-Rich Coastal Areas	
Lead(s)/Points of contact: Gary Thomas, CSF-RSMAS, University of Miami, gthomas@rsmas.miami.edu **Partners:** Private Donors **Potential Partners:** CSF, PIOS, RSMAS, UM, BEST, BDOF, COB, BREEF, BT, AIMS, government agencies, private businesses, nonprofit organizations with an interest having better information to improve the use and conservation of marine fisheries, resources and ecosystems	This partnership is to establish host institutions with local ownership in fisheries-rich coastal areas and maintain permanent operations of a **fish** and **o**cean **o**bserving **s**ystem (FISHOOS). The objective of the program is to provide local communities improved quality and quantity of information for making decisions regarding sustaining local fisheries and other economically important business activities, conduct safe-transportation and security operations and allow for efficient emergency response in their surrounding coastal areas. Within every large marine ecosystem (LME) there are often many biologically rich, candidate sites for FISHOOS, which are both ecologically and economically important to local communities. FISHOOS are at a scale that many coast fish stocks aggregate to spawn and are heavily harvested, which makes this the scale where repeatable biomass measurements are feasible and the information is practical for sustainable management. FISHOOS are fish-centric observation programs that the primary focus is on using advanced acoustical-optical technologies to conduct fish assessments as opposed to the traditional approach that primarily focuses these technologies to measure ocean physics. Key to these programs are the regional hosts responsibility to conduct routine K-12 education and public outreach programs with the fisheries assessment information. **Timeline:** Partnership development in 2004, implementation of The Bahamas program in 2004, other Caribbean and GOM coastal fisheries areas to follow. A pilot program was implemented in PWS, Alaska. *Synergy with the Ecosystems and Sustainable Tourism sectors.* (This partnership is compatible with many sections of the Marine Ecosystem Management, Environmentally Sound Marine Transportation, Sustainable Tourism and Marine Science Groups.)

Protection of Marine Mammals and Marine Habitats in the Caribbean

Lead(s) **Point of Contact**: Joth Singh cca@ccanet.net **Partners:** International Fund for Animal Welfare (IFAW) **Potential Partners:** Caribbean NGOs; Others	The waters of the Caribbean support a rich diversity of cetaceans and other marine life. Information on populations of cetaceans and many marine species remains poor. In addition, there is little to no infrastructure to support research monitoring, stranding and emergency relief efforts in an area prone to natural disasters. With increasing external pressures for use of local marine resources, a program to create local partnerships and examine cetacean populations and habitat, using the data to create public awareness is being initiated. Science, combined with public awareness, training programs and education is a useful tool and prototype to drive policy through established regional networks. The aims of the project are to: • protect endangered marine mammals • protect coastal and marine habitats in the region • promotion of eco-tourism development and other sustainable livelihoods opportunities • promote evidence of socio-economic benefit of non-consumptive activities.

Caribbean Sea Ecological Assessment

Lead: Lead(s): Cropper Foundation; University of the West Indies, St. Campus Augustine **Point of Contact:** Ms. Angela Cropper, Cropper Foundation, a.cropper@thecropperfoundation.org **Partners:** UWI, CCA IRF, CIMAB, UNEP/ROLAC, CEHI, CRFM, Instituito Oceanographico de Venezuela, CIMH, FAO, EMA, IMA INVEMAR, ACS, TNC, IDRC **Potential Partners:** TBD	The Caribbean Sea Ecological Assessment (CARSEA) is a Project in which an ecological and socio-economic assessment of the Caribbean Sea is being undertaken as part of the global Millennium Ecosystem Assessment (MA) programme. The overall purpose of the project is to contribute to the scientific basis of a decision–making framework in which policy and management decisions are taken, and governance arrangements designed, for better conservation and management of coastal and marine resources of the Caribbean Sea. This project will contribute to the implementation of Resolution 57/261 of the UN General Assembly on 20 December 2003 "Promoting an integrated management approach to the Caribbean Sea area in the context of sustainable development." In addition, it seeks to support work within the Association of Caribbean States to have the Caribbean Sea declared a special area in the context of sustainable development; and to explore possible Caribbean-wide interventions in governance, programme, capacity, international relations; that might sustain the integrity and functioning of the Caribbean Sea Activities: • Document the condition and what has been happening to the Caribbean Sea-Explore plausible scenarios making use of various storylines about likely events and realistic assumptions • Consider a range of possible responses.

Incorporating Resilience into Marine Protected Area Networks	
Lead: Lead(s): TNC, IUCN **Point of Contact:** Kristin Sherwood **Partners:** TNC, IUCN, NOAA and Wildlife Conservation Society **Potential Partners:** TBD	Capacity Building for MPA Managers - The Nature Conservancy (TNC), IUCN-The World Conservation Union, and NOAA are building a collaborative partnership that focuses on incorporating *resilience* in the face of chronic, large-scale threats such as climate change into Marine Protected Area (MPA) selection, design, and management. A program of in-depth training in resilience tools, field testing of these tools, and learning exchanges among countries and MPAs in the Caribbean is currently being developed to stimulate the rapid application of resilience principles. We would like to encourage the interest of Caribbean governments, NGOs and other institutions to participate in this partnership and begin to develop and strengthen MPA networks in the regions.
ICRAN-CARIBBEAN Partnership	
Lead(s): International Coral Reef Action Network (ICRAN) UNEP Caribbean Environment Programme Regional Coordinating Unit (UNEP-CAR/RCU) **Point of contact:** Alessandra Vanzella-Khouri avk.uneprcuja@cwjamaica.com or Malden Miller mwm.uneprcuja@cwjamaica.com **Partners** : UNF, UNEP-WCMC, CORAL/ICRIN, TNC, WRI, WFC/ICLARM, WWF, GCRMN, Reef Check, ICRI. **Regional and Local Partners:** INVEMAR; CMS/UWI; US Government, USAID; CZMC of the Netherlands Government; CZMU of Barbados Government;	The International Coral Reef Action Network (ICRAN) is a global alliance geared towards reversing the decline in coral reef health throughout the world. This unique international partnership has developed a strategic approach to reef management to ensure the continued existence of these valuable ecosystems for the benefit of the local communities they sustain. This strategy includes implementing best management practices, alternative livelihoods, capacity building, assessment and monitoring and the sharing of experiences and lessons learnt at all levels. Coral reefs and related marine life are often the only support for many people living on tropical islands and coastlines. Project activities within the Wider Caribbean Region (WCR) are focused on three main components: Management Action in the form of Demonstration Sites, Information and Communication Activities, and Assessment and Information Dissemination A primary goal of ICRAN-Caribbean which facilitates the implementation of ICRAN activities in the WCR involves strengthening local communities and other relevant stakeholders through strategies such as capacity building particularly as it relates to management and assessment of coral reefs, management of MPAs, sustainable livelihoods and public awareness programmes. Key activities also include strengthening of MPAs through capacity building, exchanges and assistance, as well as awareness activities for the private sector, decision makers and developers. The ICRAN Caribbean programme also places emphasis on the implementation of best management practices based on lessons learnt that will involve the local communities and the tourism sector, the assessment of our natural resources by empowering the local people to participate in the process, with ultimate benefits for the coral reefs.

GEF/MBRS; PROARCA.	The impact of ICRAN-Caribbean in the region include increased awareness and tangible actions that will benefit coral reefs and ultimately the people with increasing support from the private sector through the establishment of public/private partnerships.

Mesoamerican Reef Alliance Project

Lead(s): International Coral Reef Action Network (ICRAN) UNEP Caribbean Regional Coordinating Unit **Point of contact:** Kristian Teleki kteleki@icran.org Alessandra Vanzella-Khouri avk.uneprcuja@cwjamaica.com **Partners** : USAID, UNF, GEF/MBRS, PROARCA, WWF, Reef Check, UNEP-DTIE, WRI, UNEP-WCMC, CORAL, CI **Potential Partners:** TNC, WCS	The International Coral Reef Action Network (ICRAN), established in 2000, is a collaborative effort working to halt and reverse the decline in health of the world's coral reefs. ICRAN draws on its partners' investments in reef monitoring and management to create inter-linked and complementary action plans. By recognising both scientific and traditional perspectives of coral reef dynamics and respective social dependency ICRAN is the first partnership to respond to conservation needs at global scale. In response to the natural and anthropogenic threats to the unique and diverse Mesoamerican Reef (MAR) system and following generous funding from USAID/UNF, ICRAN has teamed up with the existing regional GEF/MBRS and USAID PROARCA programs. These organisations will work in close collaboration to complement and add value to ongoing efforts, which share common objectives. Mesoamerican Reef Alliance will allow new partners and international expertise into the region to promote economically and environmentally sound management of the reef, and to strategically engage major components of the private sector. Project activities will be focused into three component areas: **Watershed Management**, **Sustainable Fisheries**, and **Sustainable Tourism**. A primary objective of ICRAN activities in the Wider Caribbean is to build the capacity on the ground for sustainable management of coral reefs, emphasising the role of Marine Protected Areas (MPAs), local communities and the tourism sector. To this end a number of regional and local activities are being implemented including: coral reef monitoring and assessments; mapping of MPAs and their habitats and the promotion of best operational practices across the spectrum of coastal/marine resource users. Also, partnerships between private and public sectors will be developed to enhance the capacity for community based fishery management; and to identify sustainable economic alternatives for selected communities with the provision of training. Successful outcomes from these activities can be used to provide good working examples of effective management to the wider community. Additional initiatives include public awareness - building activities targeted at decision-makers and developers. ICRAN expects outputs to include increased adoption of better practices in the respective sectors, and to see investment by the private sector supporting reef management and conservation.

ENVIRONMENTALLY SOUND MARINE TRANSPORTATION

Co-Chairs: Rod Zika, 305-361-4715, rzika@rsmas.miami.edu
Claudia Grant, 876-754-7253, cgrant@jamaicaships.com
Professional liaison: Lindy S. Johnson, 202-482-5887, Lindy.S.Johnson@noaa.gov

Anchors Away!

Lead(s)/Points of contact: Lindy Johnson/Pat Cotter Lindy.S.Johnson@noaa.gov Cotter.Patrick@epamail.epa.gov	This partnership is to establish mooring buoys in select countries as well as an education component aimed at coral reef diving and other activities engaged in anchoring.
Partners: NOAA, EPA CORAL, Project Aware, The Ocean Conservancy, National Fish and Wildlife Foundation.	**Timeline:** Announcement of partnership at Miami Conference, with a multi-year implementation thereafter.
Potential Partners: government agencies, local dive operators, local and other businesses with interest in the Region, marinas or ports, regional tourism organizations, nongovernmental organizations with an interest in protecting coral reef resources, and funding institutions and other donors.	*Synergy with the Ecosystems and Sustainable Tourism sectors.* (This partnership is being spearheaded by the Environmentally Sound Marine Transportation group, with strong support by the Sustainable Tourism group.)

No Anchoring Areas

Lead/Point of Contact: Lindy Johnson Lindy.S.Johnson@noaa.gov	This project is to form partnerships between States and non-governmental organizations for the development of submissions to the International Maritime Organization (IMO) for the creation of No Anchoring Areas for all ships, certain categories of ships, or ships carrying certain cargoes. This partnership is in need of partners so any State that has experienced damage from anchoring, in particular by large ships, should contact the lead person on this issue.
Potential Partners: Wider Caribbean States, non-governmental organizations, industry	**Timeline (Tentative):** Target would be to submit a proposal to IMO by March 2005.
	Synergy with the Ecosystems and Sustainable Tourism sectors.

Adverse Effects from Marine Antifouling Systems: "Clean and Green Ships"	
Lead/Point of Contact: Bryan Wood-Thomas wood-thomas.bryan@epamail.epa.gov **Potential Partners:** Marine paint suppliers, shipowners, governments, the International Maritime Organization, academia, and other interested organizations.	Marine antifouling systems are used by virtually all vessels worldwide since the efficiency of these systems is critical to maintain a clean hull and reduce drag. Some marine antifoulants are known to have serious adverse environmental consequences. These concerns recently led to a global Treaty prohibiting the use of tributyltin (TBT) that has also provided the impetus for further development of environmentally sensitive systems. The "Clean and Green Ships" Initiative seeks to encourage cooperation between shipowners, marine paint manufacturers, chemical companies, governments, academia, and other stakeholders interested in advancing the use of tin-free and other environmentally sensitive antifouling systems. **Timeline:** 2004-2005 *Synergy with the Ecosystems sector and the Marine Science cross-cut.*
Harmful Aquatic Organisms and Pathogens Discharged through Ships' Ballast Water	
Lead/Point of Contact: Kathy Metcalf kmetcalf@knowships.org **Partners:** **Potential Partners:** Wider Caribbean States, IMO, Chamber of Shipping of America; The Ocean Conservancy	The main aim of this breakout session is to facilitate partnerships among the countries in the Region and the International Maritime Organization (IMO) to address threats from the introduction of harmful aquatic organisms and pathogens through discharges of ships' ballast water. One of the programs that will be highlighted at the Miami Conference is IMO's GLOBALLAST program. This program is being expanded to include some WCR States as well as used to inform and encourage potential partnerships among States within the Region. **Timeline:** Miami Conference and thereafter *Synergy with Ecosystems and Marine Science cross-cut.*
Good Mate/Clean Marinas Program	
Lead(s)/Points of Contact: Seba Sheavly/Javier Velez-Arocho ssheavly@oceanconservancyva.org Velez-Arocho-Javier@epamail.epa.gov **Partners:** The Ocean	This partnership would be to implement a Good Mate/Clean Marinas Program in selected areas in the British Virgin Islands and Turks & Caicos. Several entities have been working on, and published documents or have websites pertaining to, the issue of clean marinas and best management practices for boaters, including The Ocean Conservancy, EPA, NOAA, and the U.S. Coast Guard. Development of this partnership may help to energize the creation of a Caribbean Marinas Association. **Timeline:** 2004

Conservancy, USEPA **Potential Partners:** British Virgin Islands, United Kingdom, U.S. Coast Guard, NOAA	*Synergy with the Watersheds, Ecosystems, and Sustainable Tourism sectors.*

Cruise Ship Initiative

Lead/Point of Contact: Brooke Zanetell (zanetellba@state.gov); Steve Poulin (poulinsd@state.gov) **Partners:** International Council on Cruise Lines, Conservation International, The Ocean Conservancy, Florida Atlantic University, Florida Ocean Alliance, U.S. Government Agencies (i.e., U.S. Coast Guard, State Department, NOAA, EPA) **Potential Partners:** Wider Caribbean States, regional tourism organizations, individual cruise line companies, and other non-governmental organizations with an interest in protecting coral reef resources	The cruise ship industry plays an important role in sustainable development in the Wider Caribbean Region. To this end, a working group comprised of the International Council on Cruise Lines (ICCL), Conservation International (CI), The Ocean Conservancy, Florida Atlantic University, Florida Ocean Alliance, and U.S. Government Agencies (i.e., U.S. Coast Guard, State Department, NOAA, EPA) has been developing partnership **agreements** and **goals**. **Agreements:** A recently announced ~$1,000,000 agreement between ICCL and CI for achieving environmentally sustainable cruise operations in the Caribbean is a focal point. Encompassing all ICCL members, which represent the major cruise lines operating in the Caribbean, the ICCL/CI partnership will initially focus on four areas: 1) *Best Practices for Wastewater Management*; 2) *Establishing Destination Partnerships*; 3) *Promoting Environmental Education*; and 4) *Promoting Vendor Environmental Education*. The ICCL and CI have committed to having a science panel of experts in conservation, environmental technologies, and cruise industry environmental practices established and initial assessments ready for presentation in Spring 2004. **Goals:** Additionally, the WW2BW Cruise Ship Initiative will look for opportunities during and after the Miami meeting to expand existing partnership efforts with individual cruise lines to the wider cruise industry, including: 1) use of "green" products on ships; 2) continual modification and improvement of environmentally sound garbage management (reduce, reuse, recycle); 3) ship-rider programs that use cruise ships for research and public outreach; and 4) "on-board" classrooms for learning and teaching, e.g., GLOBE program. T Timeline (Tentative): **2004** *Synergy with Sustainable Tourism sector and Marine Science cross-cut.*

Cruise Ships, Kids, & Science

Leads/Points of Contact: Richard Pruitt, Peggy Finarelli, Liz Williams, Lisa Pitman rpruitt@rccl.com	This partnership will focus on environmental science educational activities for children traveling with their families on cruise ships. The internationally recognized GLOBE program will be initiated on one Royal Caribbean cruise ship as part of an initial pilot program. In addition to the contributions to the GLOBE database, measurements

peggy.finarelli@verizon.net ewilliams@rsma.miami.edu lpitman@rsmas.miami.edu **Partners:** GLOBE, Royal Caribbean Cruise Lines, University of Miami (RSMAS), and Miami-Dade County Public Schools (M-DCPS)	taken by these "junior scientists" will be valuable to the researchers involved in the state-of-the-art research laboratories installed on this unique cruise ship. **Timeline:** 2004 *Synergy with the Education and Science cross-cuts.*

This is the Power of Hydrography

Lead/Point of Contact Meg Danley Meg.Danley@noaa.gov **Partners:** GEF, IADB, Meso-American-Caribbean Sea Hydrographic Commission **Potential Partners:**	This partnerships aims at building capacity to develop and strengthen electronic charting and hydrographic capabilities in the Gulf of Honduras and beyond, in the wider Central America and Caribbean region. **Timeline:** *Synergy with Watersheds sector*

INTERNATIONAL SEAKEEPERS SOCIETY
Caribbean Partnership Program

Points of Contact: Rod Zika (ISKS), Cathy Woody (NOAA/NDBC), Doug Wilson (NOAA), Cesar Toro (IOCARIBE), Edward Kearns (U of Miami, RSMAS) **Lead:** Rod Zika rzika@rsmas.miami.edu **Partners: :** International agencies such as WMO; IOC and specifically IOCARIBE; U.S. agencies such as NOAA and NSF; universities and academic institutions throughout the region and particularly the University of Miami, RSMAS; NGO's such as The International	The objective of this project is to further the development of an existing regional environmental monitoring program for the Caribbean Region. The International SeaKeepers Society (ISKS) is a nonprofit 501(c)(3) organization that provides the opportunity for individual nations, regardless of size or resources available, to actively participate in a regional ocean observing initiative. This is accomplished by equipping yachts, cruise ships, research vessels, commercial ships, and other platforms of opportunity such as piers, buoys and lighthouses with sophisticated yet low- cost water and atmospheric monitoring sensors. The technology used is adaptable and can be tailored for various environmental applications such as weather, climate patterns and ecosystem characterization or for specific problems such as sources of pollution, impacts on marine resources, or human health. The ISKS program has been actively involved in monitoring efforts in the Caribbean for the past four years, during which the number of operating platforms and total annual data reports has steadily grown. The ISKS monitoring concept has been proven successful, and is now ready for the unified involvement of the Caribbean community of nations and concerned organizations. The ISKS Caribbean Partnership is an attempt to further develop the existing ISKS Program and promote its

SeaKeepers Society, Paul Allen Foundation, and others. **Potential Partners:** The governments of all countries within the Caribbean region, US agencies such as EPA and NASA, and international agencies, local and other businesses with interests in the region (particularly those associated with shipping or ship operations, marinas or ports, parks or preserves), World Bank, Ocean Conservancy, WWF, Ocean Futures, and numerous other nongovernmental organizations.	utilization throughout the region by organizing a solid core of stakeholders. This is not simply a monitoring program that provides environmental data, but has a designed comprehensive mission to promote the use of the data for prediction of change and protection of the region's environment. Education and outreach must, of course, perform a central role in this mission for it to be successful. **Timeline: O**ngoing project **Additional Information: http://www.seakeepers.org/** Synergy with the Marine Science cross-cut, A Caribbean Sea Observing System: Developing Tools for Regional Marine Resource Management, Marine Science Infrastructure in Latin America and the Caribbean: Problems and Promise The GLOBE Program,. Linking WW2BW to Regional Science Initiatives Addressing Land-Based Pollution of Coastal Waters, Cruise Ships, Kids, & Science, Cruise Ship Initiative, Regional – Environmental Status Indicator Monitoring and Use for Policy Reform
Bilateral Spill Response Agreements	
Lead/Point of Contact: Mark Meza MMeza@comdt.uscg.mil **Partners:** U.S. Coast Guard Bermuda, Panama, Mexico **Potential Partners:** U.S. Coast Guard and British Virgin Islands	Unfortunately, spills from the marine transportation sector continue to occur, thus necessitating spill response capabilities. There are a number of bilateral agreements to address spills between the U.S. Coast Guard and select WCR States. **Timeline:** Showcase existing partnerships at the Miami Conference; update on the development of pending U.S. Coast Guard/British Virgin Islands Agreement. *Synergy with Ecosystems and Sustainable Tourism sectors*
Particularly Sensitive Sea Areas (PSSAs)	
Lead Lindy Johnson Lindy.S.Johnson@noaa.gov **Points of Contact:** Saba: Paul Hoetjes Paul@mina.vomil.an San Andres: June Marie Mow junem@coralina.gov.co	There are several areas in the Wider Caribbean Region that may be appropriate for designation by IMO as a PSSA. One area that is working actively on designation is Saba Bank in the Netherlands Antilles. The partnership working on the designation of this area is the Netherlands Antilles, the Netherlands and Conservation International. **Timeline (Tentative):** Submission to proposals to 2005 Marine Environment Protection Committee meeting

Potential Partners: Saba: The Netherlands Antilles, the Netherlands, Conservation International San Andres: Colombia (Coralina), The Ocean Conservancy	*Synergy with Ecosystems and Sustainable Tourism sectors*

Waste Reception Facilities

Leads/Pointsof Contact: Claudia Grant/Shaun Lawson Laing cgrant@jamaicaships.com slawsonl@dal.ca **Potential Partners:**	This partnership may involve the development of information on the siting and provision of waste reception facilities in the various countries. **Timeline:** *Synergy with Watersheds, Ecosystems, and Sustainable Tourism sectors*

RAC/REMPEITC-CARB

Lead/Point of Contact: Rick Rodriguez Imoctr@attglobal.net **Partners:** IMO, UNEP, 33 countries countries (France, Canada, Mexico, United States, Honduras, Belize, Nicaragua, El Salvador, Costa Rica, Guatemala, Panama, Columbia, Venezuela, Suriname, Anguilla, Antigua & Barbuda, Bahamas, Barbados, British Virgin Islands, U. S. Virgin Islands, Cayman Islands, Dominica, Grenada, Monserrat, St. Kitts/Nevis, St. Lucia, St.Vincent & The Grenadines, Republic of Trinidad &Tobago, Cuba, Dominican Republic, Haiti, Jamaica, Netherlands Antilles, and Puerto Rico),	RAC/REMPEITC-Carib's mission statement is: "To assist countries to have the national capability to implement the Cartagena Convention Oil Spill Protocol and the International Convention on Preparedness, Response, and Cooperation, 1990 (OPRC) [and] to have a *sustainable marine environment* in the Wider Caribbean and Latin American region." The Center's business statement is "managing today's risk to prevent tomorrow's casualties". The Center ensures support to Environmentally Sound Marine Transportation in the region, fosters sustainable tourism, and provides protection for ecosystems. The RAC/REMPEITC-Carib is the crucial center to implement the regional cooperation called for by the Cartagena Oil Spill Protocol and the OPRC. Participation and assistance by the States of the Wider Caribbean and Latin American region is a key element in the Center's work. Additionally, the Center relies on in-kind support from donor countries and the maritime industry and the participation of voluntary, highly skilled persons to conduct such things as IMO's model training courses, national contingency plan development/ update/testing, and specialized workshops. **Timeline:** The RAC/REMPEITC-Carib is developing a Strategic Plan for 2004-2005 to address various issues, including marine living resource protection, creation of environmental investment opportunities, sustainable financing mechanisms and institutional arrangements, needs assessment, strategy, project development, training, Communication and

and industry groups (ARPEL: Regional Assoc. of Oil and Gas companies in Latin America and the Caribbean, CRRT: Caribbean Regional Response Team, CEDRE: Center of Documentation, Research, and Experimentation on accidental water pollution, CCC: Clean Caribbean Co-operative, IPIECA: International Petroleum Industry Environmental Conservation Association, ITOPF: International Tanker Owners Pollution Federation, and OSRL: Oil Spill Response Limited). **Potential Partners:** Intra-governmental organizations, non-governmental organizations, and national oil companies	raising awareness, and sharing of resources, benefits, and experience. *Synergy with Ecosystems and Sustainable Tourism sectors*

Cruise Ship Initiative

Lead/Point of Contact: Brooke Zanetell (zanetellba@state.gov); Steve Poulin (poulinsd@state.gov) **Partners:** International Council on Cruise Lines, Conservation International, The Ocean Conservancy, Florida Atlantic University, Florida Ocean Alliance, U.S. Government Agencies (i.e., U.S. Coast Guard, State Department, NOAA, EPA) **Potential Partners:** Wider Caribbean States, regional tourism organizations, individual cruise line companies, and other non-governmental organizations with an interest in protecting	**Summary**: The cruise ship industry plays an important role in sustainable development in the Wider Caribbean Region. To this end, a working group comprised of the International Council on Cruise Lines (ICCL), Conservation International (CI), The Ocean Conservancy, Florida Atlantic University, Florida Ocean Alliance, and U.S. Government Agencies (i.e., U.S. Coast Guard, State Department, NOAA, EPA) has been developing partnership **agreements** and **goals**. **Agreements:** A recently announced ~$1,000,000 agreement between ICCL and CI for achieving environmentally sustainable cruise operations in the Caribbean is a focal point. Encompassing all ICCL members, which represent the major cruise lines operating in the Caribbean, the ICCL/CI partnership will initially focus on four areas: 1) *Best Practices for Wastewater Management*; 2) *Establishing Destination Partnerships*; 3) *Promoting Environmental Education*; and 4) *Promoting Vendor Environmental Education*. The ICCL and CI have committed to having a science panel of experts in conservation, environmental technologies, and cruise industry environmental practices established and initial assessments ready for presentation in Spring 2004. **Goals:** Additionally, the WW2BW Cruise Ship Initiative will look for

coral reef resources	opportunities during and after the Miami meeting to expand existing partnership efforts with individual cruise lines to the wider cruise industry, including: 1) use of "green" products on ships; 2) continual modification and improvement of environmentally sound garbage management (reduce, reuse, recycle); 3) ship-rider programs that use cruise ships for research and public outreach; and 4) "on-board" classrooms for learning and teaching, e.g., GLOBE program.

SUSTAINABLE TOURISM

Co-Chair: Cecil Miller, OAS, 202-458-3707, camiller@oas.org
Co-Chair: Mercedes Silva, CTO, 246-247-5242, msilva@caribtourism.com
Program liaison: Elaine Denning, 202-482-2652, Elaine.J.Denning@noaa.gov

Sustainable Tourism Foundation

Lead(s)/Point of Contact(s): Cecil Miller, Director, Inter-Sectoral Unit for Tourism, Organization of American States, 1889 F. Street, Washington DC 20006, Tel 202.458.3707; fax: 202.458.3190; e-mail: camiller@oas.org

Partners: OAS

Potential Partners: USAID, EPA, IADB

The project is designed to provide a mechanism to facilitate and monitor the implementation of recommendations, partnership activities and other outputs suggested for follow-up action in the thematic area of Sustainable Tourism at the White Water to Blue Water Conference. It will also provide an inter-agency framework and mechanism to facilitate coordination, financing, implementation and collective review of sustainable tourism activities as an output of and to achieve efficient and effective follow-up to the White Water to Blue Water Conference.

The Sustainable Tourism Foundation will provide a low cost mechanism through which partnerships, forged during the Conference and follow-up activities can be supported to produce positive results. The coordination and collaboration responsibilities to be undertaken by the Foundation will be compatible synergistically with the general responsibilities of the Foundation which are as follows:

1. Promote, facilitate and help strengthen collaboration among the private sector, government, civil society, international, regional, and sub-regional organizations for the purpose of promoting, establishing, and improving sustainable tourism programs and projects in countries in the Caribbean, and in Central and South America;
2. Promote, facilitate and help establish, maintain, and strengthen government, civil society, and private sector programs for the purpose of establishing, maintaining, and expanding sustainable tourism programs and activities in countries in the Caribbean, and in Central and South America;
3. Support training and human resource development in the tourism sector for the purpose of building institutional capacity and improving the competitiveness of the sector in the Caribbean and in Central and South America;
4. Promote integral development in countries in the Caribbean and in Central and South America by helping to improve the competitiveness of small tourism enterprises, through the provision of technical assistance and training and support for employment of low income individuals;
5. Provide and arrange for technical assistance to countries in the Caribbean and in Central and South Americas for the above-mentioned activities;
6. Support the activities of the Inter-Sectoral Unit for Tourism of the General Secretariat of the Organization of American States in programs, projects and activities consonant with the purposes set forth in

	Paragraphs 1 through 6, above. 7. To solicit and provide funds, services, contributions, and in-kind contributions for all the above-mentioned purposes from public and private entities **Timeline:** TBD
Sustainable Tourism Certification and Best Practices	
Lead(s): Caribbean Association for Sustainable Tourism (CAST) **Point of Contact(s):** Deirdre Shurland dshurland@caribbeanhotels.org **Partners:** CHA, CTO, Caribbean Epidemiology Centre (CAREC), Rainforest Alliance **Potential Partners:** Sandals Resorts International (SRI), other interested hotels in Caribbean, Blue Flag Caribbean Consortium, national hotel associations (NHAs), CROSQ/national standards bureaux (JAM, T&T, BGI), TOI, PA Consulting Group/Environmental Audits for Sustainable Tourism (EAST project phase 4), Centre for Environmental Leadership in	This partnership will attempt to consolidate the sustainable tourism certification initiatives and programs already existing and/or proposed for the Caribbean. The purpose is to eliminate confusion and duplication of effort, rationalize and coordinate certification efforts in the region and provide clarity, guidance and tools to the industry. CAST is: • A founding member of the newly established Sustainable Tourism Certification Network of the Americas and its focal point of contact in the (insular) Caribbean. The Network is coordinated by the Rainforest Alliance and includes other certification programs in the United States, Central and South America. • Working collaboratively with the Caribbean Epidemiology Centre (CAREC) in Trinidad in respect of the development of 7 QTC standards and introducing health and safety aspects into industry certification, monitoring and performance efforts. • Part of the Blue Flag Caribbean Consortium along with CTO and CCA introducing Blue Flag certification criteria to and managing the program in the region. The STC/BP initiative could potentially include or be associated with the following program initiatives already listed in the WW2BW partnership roll-up: • Golf Course Environmental Practices • Environmental Management of Beaches and Marinas • Responsible Tourism: Action Plans for National Sustainable Tourism Policies and Practice • Responsible Marine Tourism Initiative • Sustainable Hotel Siting, Design and Construction Guidelines • Sea Turtle Certification Program for the Wider Caribbean **Timeline:** Jan Feb Mar

Business/Conservation International (CELB/CI), ACS, Widecast	

Charting a Course: An International Congress for Coral Reef Protection from Ship-based Tourism	
Lead(s): Oceana and Travel Just **Point of Contact(s):** Dana DuBose (Oceana) Ddubose@Oceana.org, Howard Breen (Travel Just) Hbreen@TravelJust.org **Partners:** **Potential Partners:** Non-profit conservation organizations, public agencies, academic institutions, marine tourism operators, ship owner-masters and related product and technology vendors, marinas and ports, regional tourism and outdoor recreation organizations, and ship tourism consumers and funding institutions with an interest in protecting coral reef ecosystems of North America, the Wider Caribbean and Mesoamerica	This independent NGO facilitation partnership endeavors to promote and foster sustainable tourism principles, indicators, and practices to protect and preserve reef biodiversity, coral reef integrity and air and water quality, specifically, those related to ship-based tourism products. Ship-based tourism is defined as large and small commercial passenger vessels that are used as a platform for marine/aquatic tourism and recreation e.g. wildlife viewing, reef-snorkeling/diving; sport-fishing, vessel-based beach, reef, and offshore touring. WW2BW participants are sought to discuss, amplify, and partner with Oceana and Travel Just on a congress initiative which proposes an international Congress of ocean stakeholders to draft and adopt an International Plan of Action and recommendations for the protection and restoration of coral reef ecosystems from ship-based activities (e.g. vessel-related pollution in port and marine areas, ship and reef tourism, vessel routing in sensitive areas, best available technology and best management practices, et cetera). Initial Advisory Council meetings and Congress (2005) will occur in selected countries in the Wider Caribbean Region.

Responsible Tourism: Action Plans for National Sustainable Tourism Policies and Practice	
Lead(s): Richard Tapper, Leeds Metropolitan University, UK Nick Oatley and Demelza North, Foreign and Commonwealth Office, UK Wendy Moore, The Travel Foundation, UK **Point of Contact(s):**	The Responsible Tourism in Action initiative is aimed at engaging a group of identified partners in producing sustainable tourism action plans, which help engage and guide governments and other stakeholders, including the private sector and civil society in introducing sustainable tourism policies in partner countries and UK overseas territories. The plans are intended to reflect and promote the sustainable development and livelihood needs and priorities of partner countries and overseas territories, including other partnership proposals emerging from White Water to Blue Water; and in establishing a common platform of objectives help bridge the gap between aims and investment planning.

Richard Tapper rtapper@dircon.co.uk **Partners:** UK Government; Travel Foundation, Leeds Metropolitan University **Potential Partners:** (to be contacted) UK Overseas Territories in the region (Anguilla, Bermuda, British Virgin Islands, Cayman Islands, Montserrat, Turks & Caicos Islands); and six countries from the wider Caribbean with substantial inward tourism from the UK (St Lucia, Barbados, Jamaica, Mexico, Dominican Republic and Trinidad & Tobago); UNEP Caribbean Regional Sea Programme; Caribbean Tourism Organisation (CTO), Caribbean Alliance for Sustainable Tourism (CAST), Caribbean Hotel Association (CHA), and regional and UK representatives of key tour operators	**An initial workshop (to be held after the week of the WW2BW conference)** will assist partners to identify issues, opportunities and challenges relevant to their role in tourism, develop shared, stakeholder action plans for sustainable tourism, and provide guidance on the implementation, monitoring and evaluation of these action plans. For Overseas Territories, it will in so doing assist them with implementation of their Environmental Charters. As well as benefits at local and national levels for the various partners, it is intended that the both the partnership process and the proposed action plans will be of interest and application to all ww2bw participants and stakeholders. The intention is to introduce the initiative at the ww2bw Miami conference and then distribute the outcome for wider interest as part of the follow up to the ww2bw event.
Responsible Marine Tourism Initiative	
Lead(s): The Center for Environmental Leadership in Business (CELB) at Conservation International (CI), Tour Operators' Initiative for Sustainable Tourism Development (TOI), Coral Reef Alliance (CORAL) **Point of contact:** Sarah Raposa, Manager, Travel & Leisure, CELB s.raposa@celb.org **Partners:**	CELB, CORAL, and TOI have partnered to consolidate the extensive information already developed by various organizations regarding good practices within the marine recreation industry to develop a common supply chain management tool. As a result of a four-month stakeholder consultation period, A "Practical Guide to Good Practice" has been developed to provide a central reference on good environmental and social practice from marine recreation providers for the corporate community to use during purchaser-supplier business processes. We are now seeking partners and opportunities to pilot the use of the guidelines. We are eager to pilot the guidelines at a destination level working with all purchasers and providers of marine recreation activities in the destination (notably in the Mesoamerican Ecoregion and the broader Caribbean Basin), however, we also want to encourage and support major bulk purchasers of marine tourism activities, such as hotels, cruise lines, and tour operators, to pilot test the supply chain management tool at a company-wide level.

International Hotels Environment Initiative (IHEI), International Council for Cruise Lines (ICCL) **Potential Partners:** Dive Equipment and Marketing Association (DEMA), The Travel Foundation (TF), Caribbean Alliance for Sustainable Travel (CAST)	**Timeline (tentative):** Feb: finish production of A "Practical Guide to Good Practice" and make publicly available. March-July: identify and secure 2 pilot tests in select destinations. March-December: conduct 2 pilot tests in the Mesoamerican Ecoregion and broader Caribbean Basin and capture lessons learned. January-April 2005: assess the lessons learned from pilot testing in the Mesoamerican Ecoregion and broader Caribbean Basin, and revise as needed to focus on regional/ecosystem specific issues.
Sustainable Hotel Siting, Design and Construction Guidelines	
Lead(s): The Center for Environmental Leadership in Business (CELB) at Conservation International (CI), International Hotels Environment Initiative (IHEI) **Point of contact:** Sarah Raposa, Manager, Travel & Leisure, CELB s.raposa@celb.org **Partners:** IHEI Members (including Hilton International and Rezidor Hotels), CH2M Hill, International Scientific Council for Island Development (INSULA), Institute of Responsible Tourism- UNESCO, Young & Wright Architects, Thirdwave **Potential Partners:** Travel Foundation (TF), First Choice, International Finance Corporation (IFC), Caribbean Alliance for Sustainable Travel (CAST), Caribbean Tourism Organization (CTO)	CELB has partnered with IHEI to develop globally applicable sustainability guidelines for the siting, design, and construction of hotel properties to minimize their negative environmental and social impacts. Through a multi-stakeholder consultative process, the global guidelines are being developed with hoteliers as the primary audience, and in a format that will be easily adaptable to other relevant audiences such as designers, engineers and operators, investors, developers of hotels, which encompasses many international tour operators, planning authorities and communities. We are seeking additional partners to: tailor the global guidelines to key relevant audiences; build relationships in selected destinations to secure and support the implementation of guidelines (notably in the Mesoamerican Ecoregion and the broader Caribbean Basin); raise the hotel development community's awareness of the guidelines and the business case for applying them. **Timeline (tentative):** January-April 04: finish production of global sustainability guidelines for the siting, design, and construction of hotel properties April 04 onward: identify & secure 2 pilot tests in select destinations with hotel companies, other developers (including tour operators) and/or planning authorities focusing on opportunities in the Mesoamerican Ecoregion & the broader Caribbean Basin. May 2004-May 2005: pilot test guidelines. May-December 2005: assess the lessons learned from pilot testing in the Mesoamerican Ecoregion and broader Caribbean Basin, and revise global guidelines as needed to focus on regional/ecosystem specific issues. May04 onward: tailor guidelines to other audiences/sectors (designers, engineers, investors, developers of hotels, international tour operators, planning authorities and communities) that express interest and willingness to commit resources.

Tour Operators for Sustainable Destinations

Lead(s): Tour Operators' Initiative **Point of contact:** Secretariat : Ms Giulia Carbone gcarbone@unep.fr **Partners:** Members of the Tour Operators' Initiative, CELB/CI, UNEP, UNESCO and WTO/OMT **Potential Partners:** Local authorities and local private sector representatives wishing to develop a partnership and outbound / inbound tour operators	The Tour Operators' Initiative (TOI) for Sustainable Tourism Development (TOI) is a network that brings together tour operators who have recognized the urgency of incorporating sustainable development principles into their operations. Members include inbound and outbound operators of all specialties and from all regions of the world. The TOI provides a neutral platform for sharing and refining ideas on strategies and actions, as well as a mechanism for acting together. The members of the TOI have acknowledged that sustainability goals cannot be achieved without working in partnership with all stakeholders in the destinations where they operate. Together, they can create a better tourism experience that safeguards a destination's culture, economy and environment, and increases benefits for the local community. This project proposes to organize multi- stakeholder dialogues in key destinations. As a basis for establishing credible and transparent co-operation at the destination level, TOI members work with a cross section of stakeholders that encompass the diversity of views and interests present in a destination, including local authorities, the private sector, civil society and NGOs. The workshops' objectives would be: 1. To bring together representatives from all major stakeholder and decision-maker groups in the destination to identify and prioritize the most pressing sustainability issues. 2. To develop a common long-term commitment for partnership in addressing those issues, and to agree on the agenda with the next steps and the responsibilities for the implementation. Timeline: **TBD**

Sea Turtle Ecotourism Certification Program for the Wider Caribbean

Lead: WIDECAST, TNC **Point of Contact(s)**: Karen Eckert, WIDECAST, widecast@ix.netcom.com **Partners:** WIDECAST, The Nature Conservancy, RARE **Potential Partners:** Fauna and Flora International, Rainforest Alliance, UNEP-CEP, Caribbean Tourism Organization	We propose to develop a "Sea Turtle Ecotourism Certification Program" that builds on existing best management practices for sea turtle ecotourism operations, recently published by the Wider Caribbean Sea Turtle Conservation Network (WIDECAST). The program will encompass 3 main areas: (i) Development of standards for sea turtle ecotourism operations and for beach hotels; (ii) Development of a training program that will help these stakeholders implement best management practices; and (iii) Development of a marketing strategy to promote the certification program near hotels, park managers, community-based organizations, NGOs, tour operators and others.

MARINE SCIENCE

Co-Chair: Kevin Leaman, Univ. of Miami, 305-361-4058, kleaman@rsmas.miami.edu
Co-Chair: Cesar Toro, IO-CARIBE, C.Toro@unesco.org
Program liaison: Jennifer Murphy, 202-482-5139, Jennifer.Murphy@noaa.gov

Marine Science Infrastructure in Latin America and the Caribbean: Problems and Promise

Lead(s):
Kevin Leaman (UM), A. Gutierrez (CR), F. Arias (INVEMAR), C. Pinilla (INVEMAR)

Point of contact:
Kevin Leaman (UM), KLeaman@rsmas.miami.edu

Partners:

Potential Partners:
Universities (UM, UPR, UCR, UWI), IOCARIBE, STRI, INVEMAR, CIMAR, CICESE, NOAA, NSF, EPA, CIOH, ACML

The advancement of marine science in the Caribbean is made more difficult by a number of factors, including lack of resources, multiple laboratories and institutes with inadequate equipment, and an inadequate technical support and training base. Problems inherent to the region, and possible solutions, will be discussed at an open forum with leading regional scientists and directors of regional laboratories.

A Caribbean Sea Observing System: Developing Tools for Regional Marine Resource Management

Lead(s):
D. Wilson (NOAA), C. Toro (IOCARIBE), G. Garcia (IdO), I-G Steering Comm.

Point of contact:
Doug Wilson (NOAA), Doug.Wilson@noaa.gov

Partners:

Potential Partners:
Regional Research Institutions, Government Agencies, NGOs, Commercial Enterprises

The development of advanced needs for resource management in the Caribbean Sea requires that ocean observing systems in the region be developed and that they deliver products and information that can be directly of use to regional managers. Regional leaders of the IOCARIBE-GOOS program will present a program overview, showcase prospective implementation partnerships, and solicit input from regional marine resource managers on making the system meet their needs.

Linking WW2BW to Regional Science Initiatives Addressing Land-Based Pollution of Coastal Waters

Lead(s): Dr. Michael McClain – Florida International University

Point of Contact(s): Dr. Michael E. McClain, Department of Environmental Studies, Florida International University, Miami, FL 33199
Tel. 305-348-6826
Email: mcclainm@fiu.edu

Partners: Gerhard Breulmann, Science Officer, Inter-American Inst. for Global Change Research; Maria Donoso, Regional Hydrologist, UNESCO International Hydrology Program; Harwig Kremer, Exec. Officer, Land-Ocean Interactions in the Coastal Zone – IGBP; Liana Talaue-McManus – University of Miami

Potential Partners: Florida International University; Inter American Institute for Global Change Research International Geosphere Biosphere Program Land-Ocean Interactions in the Coastal Zone; NOAA; UNESCO International Hydrology Program; United Nations Caribbean Environment Program; University of Miami

No region of the Americas depends on healthy coastal ecosystems more than the island nations of the Caribbean. Coastal waters and coastlines are important sources of food, biodiversity, and income from tourism, but these resources are threatened directly by over-exploitation and indirectly by marine and in-land sources of pollution. Urbanization, land use conversion, and climate variability are altering historical fluxes of sediment and nutrients to coastlines, and the effects are profound. Increased sediment fluxes smother reefs and increased nutrient fluxes have caused widespread coastal eutrophication in the region.

The goals of this breakout group are to 1) review the present state of knowledge about land-based fluxes of water, solutes, and suspended matter to Caribbean coastal ecosystems, 2) identify priority needs for research and capacity building that will guide sustainable management efforts, and 3) discuss opportunities for teaming WW2BW with major regional science initiatives.

EDUCATION AND OUTREACH

Co-Chair: Leonard P. Hirsch, Smithsonian Institute, lhirsch@si.edu
Co-Chair: Wayne Hunt, University of the West Indies, gradstud@uwichill.edu.bb
Program liaison: Joseph Hartenstine, NOAA, Joseph.A.Hartenstine@noaa.gov, 202/482-5483

U.S.–Caribbean University Cooperation: Linking Sea Grant and Fulbright

Leads:
NOAA, U.S. State Department

Point of Contact:
Matt Wilburn (NOAA)
Matt.wilburn@noaa.gov

Partners:
U.S. Sea Grant Colleges and Universities, Central American Universities

Potential Partners:
Caribbean Embassies

NOAA Research International in conjunction with Sea Grant and the U.S. State Department is developing a partnership that will serve to link the highly qualified and uniquely skilled members of the Sea Grant Network with the international opportunities available through the Fulbright Senior Specialist Program. The Fulbright Senior Specialist program differs from the traditional Fulbright in that it offers career professionals the chance to take advantage of short term, 2 to 6 week assignments in conjunction with Universities in 140 other countries. Sea Grant personnel are well suited to these oversea positions due to their experience dealing with diverse cultures and interest groups, their focus on community integration and involvement and their technical skills. The Fulbright Senior Specialist program offers Sea Grant personnel a chance to expand their professional experience, reinvigorate their commitment to research and extension through contact with other university faculty, and allow them to return to their Sea Grant positions with an enhanced, global perspective on the implications of their work.

Current efforts to date to facilitate these opportunities and strengthen the partnership between NOAA and the Fulbright program have been correlated with the White Water to Blue Water initiative. WW2BW is a partnership building initiative spearheaded by the State Department and NOAA focused on linking watershed and marine ecosystem based management in the Wider Caribbean Region. Informally linking the Sea Grant program and the Fulbright Senior Specialist program creates opportunities to support this initiative by providing trained, technical experts and educators from the Sea Grant Network with potential opportunities related to the ecosystem based approach: Sea Grant could provide technical expertise from among its over 3000 affiliated individuals and the Senior Specialist Program could provide an extremely well-respected institutional affiliation, logistical, and financial support to accommodate their overseas experience with a host-country university that has requested the assistance.

Plans to solidify this partnership depend on the level of interest expressed by the Sea Grant network and the opportunities available via the Fulbright Senior Specialist Program, but the initial reaction is extremely promising. This partnership has the potential to directly benefit the newly developed programs based on the Sea Grant model that are

	developing in Korea, Indonesia, and Latin America. Universities in those countries are eligible to contact the U.S. Embassy and place a request for a Senior Fulbright Scholar to support the Sea Grant program there. Examples of potential short term Sea Grant work that could be conducted under this framework include technical courses, assisting with administrative structuring and strategic planning, developing a peer review process for the institution, or designing an outreach/extension program, among others. **Timeline** **Nov:** widely publicizing the Senior Specialist program via the Sea Grant list serves and the National Sea Grant Office website, maintaining communication with the Fulbright Program to determine potential placements, and disseminating information to Embassy Public Affairs and Environment Officers as well as foreign partner universities on the products, skills, technical expertise and language abilities inherent in the Sea Grant Network so as to create additional opportunities. **Dec:** building a database of interested Sea Grant personnel that have submitted applications to the Fulbright Senior Specialist Program, communication with the Fulbright program about methods to streamline applications and develop promotional materials to be distributed to the Embassies in Latin America regarding the products, skills and technical expertise of the Sea Grant network **Jan:** communicating with Embassies and foreign institutions regarding interest in submitting requests for specialist. Solidifying relationship with the Fulbright Program to futher goals of the partnership **Feb:** tracking and evaluating feedback from the Sea Grant network, Embassies and foreign Universities about the potential productivity and viability of the partnership **Mar:** highlighting development of partnership at WW2BW conference to further engage additional countries and universities **For additional Information:** NOAA Research International: http://www.oarhq.noaa.gov/ia/ia_home.htm National Sea Grant Office: http://www.nsgo.seagrant.org/ Fulbright Senior Specialist Program: http://www.cies.org/specialists/
My Community, Our Earth – A Student-Mentor Partnership for Geographic Learning in Caribbean Nations	
Lead: Association of American Geographers (AAG)/My Community Our Earth	My Community, Our Earth (MyCOE) involves secondary school, college, and university students worldwide at the local level with sustainable development through geographic learning, and showcases positive results to the international community. The first phase of the

(MyCOE) **Point of Contact:** Patricia Solís (AAG/MyCOE) psolis@aag.org **Partners:** My Community, Our Earth Partnership (MyCOE); Association of American Geographers (AAG); US Department of Agriculture; US Forest Service; National Oceanic and Atmospheric Administration; Centro Internacional para el Desarrollo Sostenible [International Center for Sustainable Development] (ICSD); Environmental Systems Research Institute, Inc. (ESRI) **Potential Partners:** Caribbean secondary schools, colleges, and universities; participating mentors and/or mentoring organizations	program (2001-2003) comprised a global competition for showcasing student projects at the WSSD and other international and policy-making venues. The first phase program results included 2,153 resource kits sent worldwide, 202 student projects submitted for presentation, a project website (www.geography.org/sustainable), 517 mentors signed up for assisting with project development, and a successful private-public partnership. The current phase of MyCOE activities involves a series of specific projects geared toward high impact outcomes for participants and communities, focused on addressing the respective missions and constituencies of sponsoring organizations, and building upon the lessons, partnerships, and success of the first phase of the program. The Association of American Geographers (AAG) serves as MyCOE Secretariat. With the financial support of the U.S. Department of Agriculture and the National Oceanic and Atmospheric Administration, the AAG, as MyCOE Secretariat, will coordinate and undertake a set of activities focused where sustainable development, water and coastal management, and agriculture converge, mainly in the US, Latin America & Caribbean region related to WW2BW. Activities will be conducted within two categories: those related to the planned launch event of WW2BW at its 2004 Conference in Miami, and those related to programmatic activities that link the partnerships' goals. The International Center for Sustainable Development (ICSD), with headquarters at the City of Knowledge in Panama, is an international partnership developed in conjunction with the WSSD partnership guidelines with the objective of becoming an international leading organization and a model of excellence for the integrated management of knowledge aimed at promoting sustainable development in the tropics. Their mission is to generate, validate and transfer knowledge in environmental, economic and social matters, for the use of participating actors in development processes, including decision makers in policy formulation, programs and actions that promote sustainable development in the tropics. Their involvement in the programmatic activities center on developing scientific and technical capacities through specific education and training programs for programs on sustainable development; and promoting the exchange of experiences and the development of information systems needed to encourage sustainable development in US, Central American and Caribbean nations. **Timeline** **Nov:** publicize the opportunity for Caribbean mentoring opportunities among the MyCOE mentor network; learn about what existing networks may be provided through the ICSD **Dec:** identify/pursue funding sources for joint ICSD-MyCOE activities; provide and maintain web-based project assistance for helping students in the region develop local projects around water and coastal management and agriculture themes, and for making connections with

	mentors and other resources, including a webpage specifically highlighting the MyCOE-WW2BW collaboration **Jan:** create an inventory of selected key existing resources in region of interest for water issues (highlighting those using GIS), including relevant university-to-university linkages, sister city projects; identify demonstration student-mentor project(s) to be displayed in Miami that focus on water themes in the region **Feb:** supplement the MyCOE mentor network to recruit scientists and experts in the region on topics of mutual interest to WW2BW, MyCOE, USDA and ICSD themes **Mar:** collaborate on exhibit and activities for the WW2BW Conference in Miami; conduct special WW2BW-MyCOE activities at the AAG's Centennial Meeting in Philadelphia, March 2004 during the week preceding the WW2BW conference **For additional Information:** Association of American Geographers: http://www.aag.org/ My Community Our Earth: http://www.geography.org/sustainable/ International Center for Sustainable Development: http://www.un.org/esa/sustdev/partnerships/science/panamacenter_%20forsusdev.pdf
GLOBE: Involving Caribbean Students in Watershed Monitoring	
Lead: The GLOBE Program **Point of Contact:** Peggy Finarelli, GLOBE Senior Washington Representative, 703-522-6731, peggy.finarelli@verizon.net **Partners:** The GLOBE Program, the USG via NASA (the USG sponsor of the program), the governments of the Caribbean region, schools throughout the region and environmental NGOs involved in program implementation in current Partner Countries. **Potential Partners:**	GLOBE is an international Earth science and education program. It involves scientists, teachers and students in studying Earth science, collecting local watershed and other environmental data, and sharing that data with scientists around the world. GLOBE is a partnership among the US Government and the governments of countries throughout the Caribbean region, the education communities of these countries, and a variety of private and non-profit organizations that support local GLOBE activity. Many countries in the Caribbean region are already Partners in the GLOBE Program (the Bahamas, Colombia, Costa Rica, the Dominican Republic, El Salvador, Guatemala, Honduras, Mexico, Panama, Suriname, Trinidad & Tobago and the United States). The purpose of featuring the GLOBE Program and Caribbean involvement at the WW2BW Conference is to promote enhancement of the program in the above participating countries. Just as important, it is hoped that non-partner countries will become interested in participating. The broadest possible involvement of countries, schools, teachers and students is desirable – for both educational and scientific purposes. Over a million GLOBE students in more than 14,000 schools located in 105 countries are taking important environmental measurements. Their

Private and non-profit organizations interested in supporting GLOBE activities in the Caribbean region. Such support could enhance Earth science education, science and math education and the availability of scientific data to facilitate watershed monitoring throughout the region.	data are used in their own research activities and also by scientists around the world. The goals of the GLOBE Program are to: • Increase scientific understanding of the Earth, • Improve student achievement in science and mathematics, and • Enhance environmental awareness of individuals worldwide. The GLOBE Program is implemented through a worldwide network of primary and secondary schools. GLOBE students: • Take environmental measurements at or near their schools, • Report their data to the GLOBE data archive via the Internet, • Collaborate with scientists and other GLOBE students around the world. GLOBE students have reported over 10 million measurements in the areas of Atmosphere/Climate, Hydrology, Soils, Land Cover/Biology, and Phenology. GLOBE improves student understanding because it involves students in performing real science – taking measurements, analyzing data, and participating in research collaborations with other students, as well as with scientists. Scientists and educators have developed environmental science educational materials as a resource for GLOBE teachers. Professional development workshops train teachers to guide their students in taking measurements according to scientific protocols, in using the Internet to report and analyze scientific data, and in creating partnerships among students at GLOBE schools around the world. Broad international participation is integral to the design of the GLOBE Program. Bilateral agreements establish partnerships between the United States and international partner countries, which are then responsible for designing program implementation in their own countries. **For additional Information:** The GLOBE Program: http://www.globe.gov/globe_html.html